

# Telfer Graduate Research Programs' 4th Annual Thesis Competition

Friday March 15, 2024 9:15 AM – 3:00 PM DMS 4101

# AGENDA

9:15	9:30	Coffee and muffins
9:30	9:40	Welcome
9:40	9:45	Message from the Vice-Dean (Research): Dr. Silvia Bonaccio
9:45	10:15	Keynote Speaker: Dr. Charlotte Karam Impact through Scholar-Activism: The New Frontier of Value- Creating Research
10:15	11:15	Oral Presentations – Session 1
		Tin Pham Daniel J. Quintal-Curcic Wrenford Thaffe Sara Mesgari Sahar Shabani
11:15	11:30	Break (15 minutes)
11:30	12:30	Oral Presentations – Session 2
		Amanda Kutenski Shahryar Moradi Meggie Gilmour Valentina Primossi Tarek Khalil
12:30	13:30	Lunch (1 hour)
13:30	15:00	Poster Session
		Danielle Cruise Ghazale Shoghaliniri Soroor Motie Suraj Brar Yasaman Gheidar Alexandra Maharaj Defao Tchoffo Mian Wei Vu Chu

# **KEYNOTE SPEAKER:** Dr. Charlotte Karam

Ian Telfer Professor in Inclusive HR Systems

# Impact through Scholar-Activism: The New Frontier of Value-Creating Research

Join us for a compelling Keynote Address by Dr. Charlotte Karam where she will take us through her academic journey, sharing the pivotal moments and decisions that steered her towards a career dedicated to Impact Research and Scholar-Activism. Her talk will spotlight various approaches to impact within Management studies, employing a Feminist Research lens to dissect and understand the different dimensions of impact and the vital role they play in fostering change. Dr. Karam will give concrete examples of her research on inclusive human resource systems, using it as a basis to unpack the current paradigms of management research and publishing. She will cast light on recent shifts towards re-emphasizing value creation and systemic change, challenging the traditional metrics of academic success and contributing to a dialogue on redefining impact. Expect to leave enlightened on how academic research can transcend beyond the boundaries of knowledge dissemination to become a catalyst for tangible, societal transformation.

Charlotte Karam is a full professor at the Telfer School of Management. Her work as a scholaractivist contributes to overlapping conversations in leadership, inclusive HR systems, business ethics, leadership development, public policy, and feminist praxis. Dr. Karam's research adopts a multilevel lens embedded largely within the context of patriarchy, cultural variations, and sociopolitical instability to broadly examine responsible engagement of organizations within the context of developing economies. Recent publications focus



on development-oriented CSR, career patterns and opportunities for women and other marginalized groups, and the recruitment, retention and promotion policies and practices across the Middle East and North Africa. Her research has been published in the *International Journal of Management Reviews*, *Organizational Studies*, *Journal of World Business*, *Journal of Business Ethics*, *Business Ethics Quarterly*, as well as many others.

Dr. Karam's work has been funded through UN Women, UNDP, EU and other funders. Her current project has secured over 11M in external funding from the U.S. Department of State Middle East Partnership Initiative. The first phase of this work led to the development of The KIP and Lived Experience Indices - the first sector-based measures of women's recruitment, retention, and promotion in Middle Eastern and North African workplaces. In 2021, she led the second phase, The SAWI Project, focused on mobilizing decision makers and leaders across six sectors to engage in localized strategies for building more inclusive HR systems and workplace cultures. This work was recognized as one of AACSB International's Innovations that Inspire in 2018, and again in 2022. Dr.

Karam was named as a Global Gender Champion by US Dept. of State, as one of the 100 Most Influential People in Gender Policy by Apolitical, and to Bath University's #thinklist30 of influential female scholars on social media around issues of responsible business. Most recently, Dr. Karam's work has been Highly Commended in the 2024 *Financial Times* Responsible Business Education Awards: Best academic research with societal impact.

## MASTERS OF CEREMONIES:

### Alexandra Maharaj

Alexandra (Lexi) Maharaj is a first-year MSc candidate in Health Systems at the Telfer School of Management. She has previously completed an Honours Bachelor of Health Sciences in population and public health, with a minor in biology at the University of Ottawa. Her research focuses on chronic disease patients, hospital care disruptions, and technological disasters such as cyberattacks. Currently, Lexi has a studentship at the Royal Ottawa Mental Health Centre working in the Institute of Mental Health Research in the



Substance Use and Concurrent Disorders Unit, focusing on measurement-based research to improve patient care. Lexi's research focus is informed by her sustained interest in qualitative research, current work in the healthcare system, and past internships advocating for international health at parliament with multiple non-governmental organizations, creating a passion for equitable and accessible care for all.

# Mikaila Ortynsky

Mikaila Ortynsky is a PhD student in the Organizational Behaviour and Human Resources specialization, under the supervision of Dr. Jennifer Dimoff. Her research focuses on worker well-being, women's health and gender in leadership. Mikaila holds a SSHRC doctoral fellowship (2022–2026). Mikaila received an MSc in Management (Organizational Behaviour) in 2022 from Memorial University of Newfoundland. Her SSHRC-funded master's thesis investigated how menstruation affects work behaviours and



outcomes. She also has a BComm from the University of Saskatchewan. Mikaila won best oral presentation in the 2023 Telfer Thesis Competition and the 2023 John Duncan and Deb Cross Award. She has two peer-reviewed publications in *Stress & Health* and the *International Journal of Manpower* and has presented her research at numerous conferences, including the Academy of Management Annual Meeting, the Canadian Psychological Association Annual Convention, the European Academy of Management, and the Administrative Sciences Association of Canada (ASAC) Conference. In 2020, her BComm thesis was named best student paper at the ASAC conference.

### JUDGES:

### Dr. Sana Rizvi Assistant Professor

Sana Rizvi is an assistant professor of organizational behaviour and human resources management at the Telfer School of Management. She holds a PhD in industrial and organizational psychology from the University of Waterloo. Prior to joining Telfer, Dr. Rizvi was a professor in OB/HRM at the Faculty of Business, University of New Brunswick, Saint John. Dr. Rizvi's research interests primarily focus on workplace conflict and organizational injustice, with a particular emphasis on the factors that promote victim forgiveness and



offender apologies, such as mindfulness. Her research has been published in numerous peer-reviewed journals, including the *Journal of Experimental Psychology: Applied and Social Psychological and Personality Science*. She has also presented her research at various peer-reviewed conferences, including those of the Academy of Management and the Society for Industrial and Organizational Psychology.

### Dr. Mayur Joshi Assistant Professor

Mayur Joshi is an Assistant Professor of Information Systems at the Telfer School of Management. He earned his PhD in information systems from Ivey Business School at Western University. He previously taught as a lecturer (assistant professor) at Alliance Manchester Business School at the University of Manchester. Prior to his career in academia, Dr. Joshi worked in the banking industry where he contributed to technology implementation, process improvement, and branch banking operations. His research



interests are at the intersection of information systems and organization theory and examine the phenomenon of digital transformation. His overarching research question unpacks how digital technologies shape and are shaped by the fundamental practices, processes, and strategies of organizing. He has published in *MIT Sloan Management Review*, the *Journal of the Association for Information Systems*, and the *Cambridge Handbook of Qualitative Digital Research*. Dr. Joshi is the recipient of the AIS Outreach Practice Publication Award and *MIT Sloan Management Review*'s annual top-10 articles recognition.

# Dr. Lance Ferris Full Professor

Lance Ferris is a Professor of Organizational Behaviour/Human Resources at the Telfer School of Management. Prior to joining Telfer, Dr. Ferris taught as an Assistant Professor at the Lee Kong Chian School of Business at Singapore Management University, an Associate Professor at the Smeal College of Business at Pennsylvania State University, and an Associate Professor at the Eli Broad College of Business at Michigan State University. He previously served as Associate Editor at *Organizational Behavior and Human Decision Processes* and is currently on the editorial board of *Academy of Management Review*. His work has been published in the *Journal of Applied Psychology, Academy of Management Journal, Academy of Management Annals, Organization Science*, the *Journal of Personality and Social Psychology, Organizational Behavior and Human Decision Processes*, and *Personnel Psychology*.

### Dr. Nelson Duenas Assistant Professor

Nelson Duenas is an Assistant Professor in Accounting at the Telfer School of Management. Dr. Duenas is a professional accountant and holds both an MBA and a Ph.D. in Accounting from Concordia University. He has industry experience in external auditing, financial accounting, and financial analysis. He worked at the United Nations' Joint Inspection Unit in Switzerland and was a consultant to UNCTAD for the implementation of the Accounting Development Tool in Colombia. Nelson's research interests are



in the areas of management control, performance measurement, and accountability, particularly in the international development sector. He explores how management control and accountability mechanisms interrelate with trust in the cooperation relationships between donors and implementing organizations of international development projects. His research has been published in *Critical Perspectives on Accounting* and has been supported by grants from the Government of Québec, the CPA Research Centre in Accountability at the John Molson School of Business, Concordia University, and Universidad Externado de Colombia.

# Dr. Christopher Sun Assistant Professor

Christopher Sun is an Assistant Professor at the Telfer School of Management and a Scientist at the University of Ottawa Heart Institute. His research interests lie at the intersection of optimization, artificial intelligence, public health, and health equity. His research primarily revolves around utilizing data-driven optimization, machine learning, and simulation techniques to inform the design of healthcare systems and development of public health policies. He earned a BASc in Engineering Science (Biomedical Engineering) and



PhD in Industrial Engineering from the University of Toronto. Prior to joining Telfer, Dr. Sun was a Postdoctoral Fellow and Visiting Assistant Professor at the Massachusetts Institute of Technology's Sloan School of Management. He has published in the *Journal of the American College of Cardiology, Circulation, Health Affairs,* and the *Journal of the American Medical Directors Association*. His research has also been covered by the New York Times, Globe and Mail, Toronto Star, Huffington Post, CTV, and Reuters. He is a recipient of the American Heart Association Young Investigator Award and was named to the Citizen CPR Foundation's 40 Under 40 List in 2021.

### **PRESENTATIONS:**

### Tin Pham

Tin Pham is a PhD candidate in the Digital Transformation and Innovation program, under the supervision of Dr. Bijan Raahemi. He obtained his MSc in Management Information Systems in 2019 from Heilbronn University, Germany. Tin has also been awarded a QEII-GSST scholarship for his research project. Tin is interested in the challenges associated with detecting outliers, specifically financial frauds. He focuses on designing and developing metaheuristic techniques to reduce high-dimensional financial data, which will



facilitate fraud detection. Tin and his supervisor are experimenting with quantum-based bio-inspired algorithms to enhance financial fraud detection, in the context of high-dimensional data. Since 2010, Tin has been working in various data analytics positions, from solution architect to project manager, which helped him gain diverse experience in enterprise data solutions. Additionally, Tin has actively contributed to the academic community by peer-reviewing publications in esteemed journals, including *IEEE Access* and *Expert Systems with Applications*.

#### A quantum-based bio-inspired feature selection algorithm for Outlier Detection with Application in financial fraud detection

Abstract: Detecting outliers (data points that are significantly different than the majority of the data, such as financial frauds or network attacks) is often expensive, imprecise, and time-intensive when employing manual inspections or machine learning techniques, given the volume and complexity of the data. This research addresses this challenge by developing an effective bio-inspired feature selection (BIA-FS) method for detecting outliers, particularly financial frauds. Our study follows the Design Science Research Methodology process by Peffers et al. (2007). To commence, we conducted a systematic literature review (SLR) of bio-inspired feature selection in the context of financial fraud detection to investigate prior knowledge and identify gaps in the related literature. Based on our findings, we then developed a novel genetic feature selection algorithm (QGA) for financial fraud detection, leveraging guantum theory. Preliminary experiments against established methods using various financial fraud datasets demonstrated the superior performance of our QGA, surpassing baseline techniques. Moving forward, we will fine-tune our QGA to enhance its performance and robustness. Subsequent to the QGA's development, we will derive a framework with guidelines to integrate quantum concepts into BIA-FS. Our final objective is to implement the proposed QGA on distributed platforms, leveraging parallelization to optimize processing time. We aim to enhance the scalability and efficiency of our algorithm, ensuring its practical viability in real-world financial fraud detection scenarios. This study presents two key contributions. Theoretically, it pioneers the exploration of

financial fraud detection using a bioinspired feature selection algorithm. From a practical standpoint, the immediate impact lies in its ability to boost revenue for businesses. By proactively preventing fraud, the study facilitates the identification of reliable customers, strengthens customer relationships, and safeguards the reputation of businesses. Additionally, implementing the proposed QGA on distributed platforms ensures optimal performance and scalability, further benefiting organizations.

# Daniel J. Quintal-Curcic

Daniel James Quintal-Curcic (he/him) is a PhD candidate under the supervision of Professor Laurent Lapierre at the Telfer School of Management. Daniel specializes in organizational behaviour and human resources, and his research interests include mental health, leadership, and social support. Daniel's research focuses on how managers and supervisors respond to employees' signs and symptoms of poor mental health. The goal is to determine a set of actionable behaviours that managers/supervisors can demonstrate to



help reduce employees' experience of burnout as well as increase their memory and attention at work. Daniel's passion for health and wellness goes beyond his research interests, as he enjoys cooking plant-based recipes, meditating, and fitness. A fun fact about Daniel is that he is a RuPaul's Drag Race superfan and loves the art of drag.

#### **Developing the Construct of Mental-Health-Responsive Supervision**

Abstract: Poor mental health is a global health concern, and the World Health Organization (WHO) calls on organizational leaders to incorporate prevention and promotion efforts to create mentally healthy workplaces. Further, research indicates that managers play a pivotal role in protecting and enhancing employees' well-being through their demonstrations of social support. Although there is empirical evidence to support this relationship, the specific behaviours leaders should demonstrate when responding to employees' signs and symptoms of poor mental health are unknown. My dissertation research draws on public health intervention strategies to determine what behaviours managers should demonstrate when responding to employees' signs and symptoms of poor mental health to reduce burnout and increase memory and concentration at work. I label this construct Mental-Health-Responsive Supervision. My approach was guided by best practices in psychological science for developing survey scales. I drew on recommendations from Hinkin's (1998) and Hammer and colleagues (2009) scale development research. Across a multistudy research program, I generated scale items inductively from qualitative recall surveys (Study 1), determined the dimensionality (factors) underlying the items (Studies 2A and 2B), engaged in a series of analyses to retain the best items (Studies 3 and 4), tested for convergent and divergent construct validity (Study 5), as well as tested for criterion validity (Study 6). I have developed a

behavioural measure of mental-health-responsive supervision. These behaviours will prevent further reductions in mental health for those employees experiencing poor mental health. The MHRS scale elucidates specific behaviours that would benefit employees' mental health when symptomology of poor mental health is present. In so doing, the MHRS scale may be particularly useful in helping organizations train their managers on how to respond to employee mental health more effectively. This research project could guide organizations wanting to bolster their staff's mental health.

# Wrenford Thaffe

Wrenford Thaffe is a 4th year PhD student in (Entrepreneurship) Management under the supervision of Ajax Persaud. He studies how work has changed in the new economy and how nonstandard work participation influences entrepreneurial entry. In his most recent body of work, Wrenford explores how different types of contexts determine whether gig workers will be motivated to start independent businesses. Wrenford presented his early work at the Administrative Sciences Association of Canada



(ASAC) Conference in 2022, where he was also recognized with the best reviewer award for the Entrepreneurship division. He has since co-authored a paper with his supervisor that was published by the Transnational Corporations Review journal in 2023. Before joining Telfer, Wrenford spent 6+ years working in Executive Engineering and Product Recruiting for early-stage startups in the United States. He was also a Project Lead at Massachusetts Institute of Technology (MIT) Museum and a Presenter at Museum of Science, Boston. He holds a Master of Laws (LLM) in Intellectual Property from University of West Indies, Jamaica and a Bachelor's degree in Chemistry and Art (Honors) from Amherst College, United States.

#### Gig Work Characteristics and Entrepreneurial Intentions: Understanding the Mediating Role of Entrepreneurial Identity

**Abstract:** Recent studies suggest that gig work participation may predict entrepreneurial intention, but the underlying mechanism is not well understood. We address this research gap by exploring how task characteristics associated with gig work may influence entrepreneurial intention via entrepreneurial identity. Drawing from job characteristics theory and the identity work literature, we theorize that people who do gig work high in certain task characteristics (e.g., autonomy, complexity, and skills variety) will more strongly self-identify as entrepreneurs desiring to start their own businesses. We test our hypothesis using partial least squares structural equation modeling (PLS-SEM) on data collected from 250 gig workers using a three-part survey administered between August 2023 and October 2023. Our findings indicate that people who perform gig work high in task complexity and skill variety more strongly adopt an entrepreneurial identity and will

have a stronger intention to start their own businesses. Specifically, we find that entrepreneurial identity partially mediates the relationship between task complexity and skill variety, and entrepreneurial intention. Our results have important practical and theoretical implications. For example, we now know how working for gig platforms like Uber or Fiverr can influence a person to start their own business, which is a significant contribution to current literature linking the growing gig economy to entrepreneurship. These results also challenge the prevailing view of gig work as a dead-end career move by showing how it may influence workers' self-perception and promote aspiration of new business creation. Furthermore, knowing the types of gig work that promote entrepreneurial identity will help policymakers better identify and nurture gig workers who wish to start their own businesses, which can yield several personal, social, and economic benefits. Finally, we contribute to job characteristics theory by answering the call for more research that explores different outcomes related to its core job characteristics.

### Sara Mesgari

Sara Mesgari is a PhD candidate at the Telfer School of Management and a recipient of a 2021-25 graduate scholarship. Her research centers on optimizing policy through data analysis for enhanced healthcare system productivity. Sara holds an MSc in industrial engineering from Sharif University of Technology (SUT), a BSc from the University of Tehran, and a Diploma in Operational Research from the Canadian Operational Research Society (CORS). Before Telfer, she worked as a BPMS engineer at Gam Electronics Co. and a



teaching assistant at SUT. Sara has been a teaching assistant at Telfer since Fall 2021 and taught the operations management course in Fall 2023. In 2022, Sara co-authored a paper on patient appointment scheduling for radiotherapy centers, predicting and integrating patient behavior into the scheduling problem. She has also presented her research at the 2023 Canadian Operational Research Society (CORS) conference in Montreal. Sara is currently immersed in the first two chapters of her thesis in which she is applying dynamic programming to address the paramedic unit redeployment problem using data from the Lanark County Paramedic Service, and to a surgery scheduling problem using data from the CHEO surgical service. She is currently serving as Vice-President (Academic) in the Telfer Research Student Association (TRSA).

# Improving real-time ambulance redeployment decisions for emergency medical services

**Abstract:** Emergency Medical Services (EMS) play a crucial role in providing timely and efficient healthcare, especially with the rising demand driven by an aging population and the shortage of staff and vehicles. The ambulance redeployment problem is a critical

aspect of EMS management, aiming to optimize the allocation and relocation of ambulances to meet growing demands effectively, reduce response times, and use resources more efficiently. Partnering with the Lanark County Paramedic Service, this research addresses the question: "How can the redeployment of different types of paramedic vehicles be improved to ensure adequate response times to future emergencies?" Many studies have used a mathematical programming approach to deal with the ambulance redeployment problem. This research will also apply mathematical programming, specifically dynamic programming, to optimize decisions regarding the redeployment of ambulances. Dynamic programming allows the modeller to incorporate changes into the system over time in a sequential decision-making setting. Due to the large scale of this problem, Approximate Dynamic Programming (ADP) as well as the column generation algorithm will be used to solve the problem and solicit useful outputs. We have established a relationship with the Lanark County Paramedic Service and have already received the necessary data. For the evaluation of the performance of the proposed model, we will use simulation to compare performance measures before and after implementation. The outcome of this research will be a decision-making approach to a) help EMS institutions to simplify and dynamically optimize the redeployment of their vehicles, b) improve their performance metrics, c) provide managerial insights to help them develop and enhance ambulatory vehicle policies, and d) project capacity requirements for future years. In conclusion, this research aims to provide a solution to the ambulance redeployment problem, offering a decision-making tool for EMS institutions to navigate the challenges posed by increasing demand and resource limitations.

## Sahar Shabani

Sahar Shabani is a PhD candidate in finance at the Telfer School of Management. She is working under supervision of Professor Ali Akyol and Professor François-Éric Racicot, focusing her research on corporate finance and corporate governance. Her thesis is particularly in topics related to the context of CEOs such as CEO turnovers and CEO power sharing. Employing mixed methods from finance and textual analysis, her research findings focus on analyzing quarterly earning conference calls around CEO turnovers



and its impacts on various stakeholders. Prior joining Telfer, Sahar earned her BSc and MSc degrees in industrial engineering from Amirkabir University of Technology in Tehran, Iran. Her master's research primarily centered on financial engineering and portfolio optimization. While earning her master's degree, she also gained valuable experience in different roles, including data analyst and investment specialist. Outside her academic pursuits, Sahar is an active person who enjoys working out, biking, and stand-up paddleboarding.

#### **CEO** communication style before turnover

Abstract: CEO turnovers significantly impact firms' strategies and performance, intensifying stakeholders' uncertainty. Both voluntary and forced turnovers contribute to outsiders' uncertainty about a firm's future, necessitating resolution through performance and periodic disclosures (Bochkay et al., 2019). During guarterly earnings conference calls, CEOs play a pivotal role by strategically presenting actions and strategies to influence the market's perception of their abilities (Noh & Zhou, 2022; L. Pan et al., 2018). This research examines differences in CEOs' communication styles before voluntary versus forced turnovers and identifies linguistic factors predicting forced turnovers. Given the assumption that uncertainty about firm performance and prospects affects the market's demand for more information, the analysis explores how predicting forced turnovers from CEO verbal language in conference calls influences market reactions and whether analyst composition changes by temporal change in CEO communication style. Recognizing the influence of language, this research employs the Linguistic Inguiry and Word Count (LIWC) tool to analyze executives' speech during conference calls. Investigating beliefs, thinking patterns, social relations, time orientation, and personalities, the study unravels communication nuances preceding CEO turnovers. Using factor analysis and Sparse Principal Component Analysis (SPCA), three distinct components from speech patterns emerge. The first reflects a leader communicating with clarity, pragmatism, and a forward-looking perspective, skillfully balancing simplicity with strategic depth. The second suggests a more measured and individual-focused communication style, emphasizing personal achievement and internal motivation. The third underscores CEOs' tendency to maintain professionalism and formality. Results reveal temporal changes in CEOs' communication style before forced turnovers, distinguished from voluntary departures. The study utilizes logit regression, textual analysis, and SPCA to demonstrate how CEOs' specific verbal language predicts forced turnover, shaping market beliefs. In summary, this research illuminates CEO communication dynamics, providing insights into the predictive power of verbal language in understanding and influencing market reactions to turnovers.

### Amanda Kutenski

Amanda Kutenski is a first-year student in the MSc Health Systems program. Before pursuing her graduate studies, she obtained an honours bachelor's in interdisciplinary health sciences, specializing in health technologies at the University of Ottawa. During her undergraduate studies, Amanda participated in a research project with the SHERPA Research Institute, studying the impacts of COVID-19 on health and social services delivery for allophone communities in Québec. This experience ignited an interest in innovating



healthcare service delivery. Her thesis has derived from this passion and aims to explore the impact of electronic medical records systems on the quality of care from the perspective of healthcare professionals at the University of Ottawa Heart Institute. During her spare time, you would find her challenging her capacity for movement with rock climbing and cross-country skiing, engaging her creative side through crocheting and painting, and being a proud dog mom.

# A mixed methods analysis of Epic electronic medical record implementation in an academic acute care hospital

**Abstract:** Despite the increasing shift towards the use of electronic medical records (EMRs), there is limited evidence on the effects of system implementation in acute-care hospitals, notably in Canada. In 2019, the University of Ottawa Heart Institute (UOHI) and five other Ottawa hospitals launched their use of the Epic EMR. An initial pre-post study assessed the impacts of the implementation, whereas this follow-up study aims to investigate the changes in physicians' and residents' perceptions of its effects on professional working practices, patient safety, and quality of care at the UOHI. Employing an explanatory sequential mixed methods design will provide an in-depth analysis of the study context. A survey featuring close-ended and 5-point Likert questions will measure respondents' satisfaction with the system and their perceptions of the EMR's impacts on medical practice and patient quality of care. Following the survey, I will conduct semistructured interviews with key stakeholders. I will then extract objective indicators from the Epic system (e.g., IT ticketing incidents of system failures) as proxy measures of quality and safety incidents. Descriptive, comparative, and inferential statistics will be employed to analyze quantitative findings. Interviews will be explored using content analysis, and all results will be integrated following triangulation protocol. This study will highlight the potential differences in perceptions between physicians and residents, while the interviews will further explain and contextualize these findings. The system indicators compared to the subjective perspectives will elucidate the differences between the professionals' perceptions and the objective data. In partnership with the UOHI, this quality improvement research will identify gaps within internal processes of system use, proposing solutions to enhance practice standards. These findings will also contribute to the limited available literature on information systems in acute care and guide implementers and decision-makers in improving these systems' use within hospitals.

# Shahryar Moradi

Shahryar Moradi is a PhD candidate in management, specializing in health systems, at Telfer. Commencing his doctoral journey in 2021, Shahryar is under the co-supervision of Dr. Jonathan Patrick and Dr. Antoine Sauré. His academic foundation includes a BSc in industrial engineering from the University of Tehran in 2018 and an MSc in industrial engineering from Sharif University of Technology (Iran). During his master's program, Shahryar actively contributed to various healthcare-related projects, showcasing



his expertise in elective surgery sequencing, patient appointment scheduling for radiotherapy centers, outpatient clinic operations management, and healthcare data analytics. The practical application of his research findings at Milad Hospital in Tehran exemplifies his commitment to bridging theory and practice. Shahryar has a strong background in operations research and statistics, with his research primarily focused on utilizing optimization methods, including MDP modeling, stochastic programming, and data-driven optimization. His work addresses challenges characterized by a high level of uncertainty, reflecting his commitment to advancing the field. In addition to his doctoral studies, Shahryar is a teaching and research assistant at Telfer. His contributions extend to developing models and solving real-world problems, with a specific emphasis on the healthcare sector. This includes addressing patient scheduling issues and emergency evacuation of patients in wildfires, collaborating with the National Research Council (NRC). Additionally, his research explores supply chain resilience, employing a combination of data analytics and optimization approaches. Shahryar has presented his doctoral work at the 2023 CORS Conference in Montreal and the 2023 Healthcare -INFORMS Conference in Toronto. Shahryar has also earned an Operations Research diploma from the Canadian Operational Research Society (CORS). Shahryar is currently serving as the vice-president (finance) of the Telfer Research Student Association (TRSA).

#### Improving Access to Stroke Prevention Consults through Enhanced Capacity Planning and Patient Appointment Planning

**Abstract:** Motivated by the problem faced by The Ottawa Hospital (TOH), this research focuses on the study of patient appointment scheduling practices at a Stroke Prevention Clinic (SPC). A patient who is referred to a SPC is typically scheduled for an initial consult with a neurologist. Prior to that initial consult, several tests, depending on the patient's condition, may need to be performed. SPCs usually face challenges in reducing patient wait times for consults and in having all test results available before consultation. The main purpose of our study was to develop a good policy for allocating available testing and consultation capacity to incoming patients, while reducing patient wait times and increasing the number of test results available before consultation in a cost-effective manner. To achieve this goal and to address the aforementioned challenges, we use

mathematical programming and simulation. We proposed a dynamic multi-priority, multiresource appointment scheduling model which we approximately solved using Approximate Dynamic Programming (ADP) techniques. By closely examining how the proposed model makes the optimal decisions using ADP, we obtained an easy-to-use policy that could be handed over to the practitioners who are not necessarily expert in operation research area. The potential benefits from the proposed approach were evaluated through simulation for a practical example based on the data provided by TOH. The performance of our policy has been compared against popular scheduling policies existing in the literature. Our policy was able to outperform all the benchmark policies. In this research, we demonstrated the usefulness of dynamic programming in addressing a problem setting in which we have a high level of uncertainty and heterogeneity. The developed policy reduces the wait time target violation for the appointments, makes sure the test results are available before the consult sessions, and makes the best use of the available capacity.

### Meggie Gilmore

Meggie Gilmore is currently pursuing her second year in the MSc Health Systems program, holding a Bachelor of Science in Nursing from the University of Ottawa. Ottawa has been her lifelong home, fostering a deep passion for the community. Professionally, Meggie engages in part-time work at the Neonatal Intensive Care Unit at CHEO, coupled with previous experience at Ottawa Public Health administering vaccines during the COVID-19 pandemic. Her dedication to mental health research stems from personal experience with



ADHD and working in environments where patients and their families navigate through challenging times and mental health needs. Through her nursing career, she's gained insights into the intricate dynamics between healthcare systems and individual needs, inspiring her exploration of broader healthcare challenges and individual level impacts. Her thesis research revolves around exploring the experiences of 2SLGBTQ+ university students accessing mental health services and supports. Additionally, she was fortunate to have enriching internship at CHEO's research institute this past summer. She contributed to a youth precision mental health project, gaining valuable insights into innovative system-level changes for mental health care. This experience further inspired my commitment to mental health research. Meggie hopes to leverage her academic and professional background to contribute meaningfully to the mental health field and to make a positive impact on the well-being of individuals, communities, and our healthcare system.

#### Exploring the Experiences of 2SLGBTQ+ University Students in Accessing Mental Health Services and Supports

Abstract: Existing research indicates that 2SLGBTQ+ (Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, +) individuals face stigmatization and discrimination, contributing to barriers in accessing quality mental health services and supports. There is substantial descriptive research on the high prevalence and nature of mental health issues among 2SLGBTQ+ university students and some gualitative insights on 2SLGBTQ+ individuals' experiences accessing services and supports, however the experiences of 2SLGBTQ+ university students remain understudied. Therefore, this research aims to 1) understand the experiences of 2SLGBTQ+ university students in accessing mental health services and 2) gather improvement suggestions from their perspectives. This gualitative research is being conducted through semi-structured interviews with 2SLGBTQ+ university students. The transcripts will be analyzed using Braun and Clarke's six-step thematic analysis process, which involves developing initial codes in a primarily inductive manner to focus on participants' experiences, and then grouping the codes into more abstract themes. Finally, the findings will be compared with existing literature (e.g., Meyer's (2003) minority stress theory), and participant feedback will be sought to enhance credibility of the study. Analysis is currently ongoing. Preliminary results include positive and negative experiences with mental health service providers and support from family, peers, and work and school environments, and hesitation of accessing services due to perceived insufficient severity. Joining university elicits changes in access and community involvement. Fear of stigmatization, pathologization, hesitation of sexuality/gender identity disclosure and anticipated education of others has been illustrated across different settings. Social support has been highlighted as a key resource and comfort with 2SLGBTQ+-identifying providers has been emphasized. The expected contributions of this study include facilitators and barriers to access, and areas for improvement. Preliminary implications for improvement include increasing visibility/awareness of services and supports, modifying existing services/supports to meet 2SLGBTQ+ students needs, creating a university peer support program, and more.

## Valentina Primossi

Valentina Primossi is a PhD Candidate in Digital Transformation and Innovation at the University of Ottawa under the supervision of Dr. Michael Mulvey. Born in Italy, she moved to Canada in 2013, accepting a basketball scholarship at Cape Breton University. Val earned her Bachelor of Arts in Political Science and Master of Business Administration in Community Economic Development while maintaining an "Academic All Canadian" status as a varsity athlete. After graduating, she worked as an Innovation Associate



for a crown corporation, where she was dedicated to understanding consumer perception and needs. Fueled by this passion, she transitioned into academia, pursuing an interdisciplinary Ph.D. blending business and engineering studies at the University of Ottawa. Her specialization lies in consumer experience and service marketing, focusing on enhancing air travel experiences for disadvantaged and marginalized consumers. particularly people living with dementia (PLWD) and their travel companions. In her gualitative research, Val employs nethnography to investigate personal stories and experiences shared in online communities by PLWD and semi-structured interviews with a broad range of stakeholders, from policymakers to PLWD, to ensure the developed solutions are comprehensive and practical. Collaborating with Transport Canada and the National Research Council of Canada (NRC), she strives to develop inclusive service models catering to the unique needs of PLWD. Val showcased her research at international conferences, including Netnocon2023, TTRA-Europe, AMA Marketing and Public Policy, TCR2023, and the IATA 2023 World Financial Symposium & World Passenger Symposium. Outside the academic realm, you can find Val running around Ottawa and Gatineau, playing basketball at the GeeGees court, or enjoying activities such as swimming and skiing down Quebec's slopes in her free time.

#### **Clear Skies: Rethinking Dementia-Friendly Air Travel Experiences**

Abstract: Over the last century, our conception of what constitutes a good quality of life has evolved significantly, a shift largely attributable to the global increase in life expectancy. The constant progression of the ageing population has not only extended life spans but also reshaped essential aspects of quality of life, such as mobility and social engagement. With the rising number of older individuals (United Nations, 2019) comes a growing prevalence of cognitive challenges, including dementia (World Health Organization, 2023). Those affected often face difficulties in their daily lives, which can lead to social isolation, particularly when navigating transport systems -a situation of particular concern in Canada, where air travel bridges long distances. My research delves into service marketing, focusing on service design and innovation. I aim to examine the current aviation ecosystem, specifically identifying barriers prevailing in the air travel experiences of individuals living with dementia that can be transformed into opportunities for a more accessible and inclusive society. Employing a multidisciplinary approach, I have initiated a netnography (net=online, nography=ethnography), which has allowed the uncovering of personal and rich narratives of air travel journeys for these groups of passengers. Such insights are expected to inform about potential areas for further exploration. To advance this initiative, I will conduct semi-structured interviews with a broad range of stakeholders, from policymakers to individuals living with dementia, to ensure that the developed solutions are comprehensive and practical. The initial phase of my research has indicated significant opportunities for improvement in providing accessible air travel experiences, such as information and awareness, community and stakeholder engagement, staff training, linguistics, and data sharing. This research highlights an urgent call for barrier-free travel developments and strives to elevate air travel standards, making it dignified and enjoyable for all passengers, especially those navigating the complexities of dementia.

# Tarek Khalil

Tarek Khalil is a current PhD student at the University of Ottawa, pursuing a doctorate in Digital Transformation and Innovation. His current research focuses on "Factors Affecting the Implementation of Assistive Robots and their Impacts in Long-Term Care (LTC)." Tarek's work addresses crucial gaps in the field, providing a comprehensive overview of the needs of both LTC patients and staff. His research contributes significantly to the literature by presenting an implementation and evaluation framework,



offering LTC managers evidence-based tools to guide decisions on the integration of robot technologies. Tarek earned a Bachelor's degree in mechanical engineering with distinction, securing a full scholarship. He furthered his academic journey with a Master's in Business Analytics, showcasing his analytical prowess through a thesis on the "Circular Economy in Lebanese Glass Industry." This experience enhanced his ability to analyze complex business problems and propose effective solutions. With a wealth of experience as a Technical Consultant, Tarek has gained a deep understanding of how technologies such as digital transformation services, robotic platform integration, and innovative business technologies can elevate employee productivity and enhance the quality of care for patients and residents. Tarek's interests lie at the intersection of Health Informatics and Health Care Management, evident in his experience on the implementation and effects of telehealth applications and innovation in digitalizing healthcare and senior homes. Leveraging his expertise in data analytics, technology, and innovation consulting, he aspires to design and implement digital solutions for the healthcare industry, particularly in telehealth services. His commitment to bridging the gap between technology and healthcare reflects a passion for creating smart, efficient, and compassionate healthcare environments.

#### Factors Affecting the Implementation of Assistive Robots and their Impacts in Long-Term Care (LTC)

**Abstract:** Amid Canada's demographic shifts and an aging population, challenges in providing quality care for older adults, addressing healthcare staff stress and burnout, and managing extensive long-term care (LTC) bed waitlists (range: 5 months - 2.5 years) persist. Assistive robots (AR) offer potential solutions to these challenges. However, a critical gap in existing literature and reviews is the absence of frameworks for guiding AR implementation in LTC and assessing their impacts. Through three stages, this research aims to develop a comprehensive framework to inform and guide the decisions on the implementation of ARs and assess their use and impacts at different levels of the ecosystem in LTC homes (e.g., efficiency, care's quality, tasks' completion time, stakeholders' satisfaction, etc.). In stage 1, an umbrella review will critically appraise systematic reviews on ARs in older adults' care contexts, synthesizing evidence on AR implementation and impacts in LTC. A proposed evaluation model will guide future AR

assessments in LTC. In stage 2, stakeholders' needs will be assessed through focus groups at Perley Health (one of Ontario's largest LTC homes) with older adults in apartment units and caregivers of LTC residents, and Delphi surveys with healthcare professionals and administrative staff to identify perceived AR-supported areas. In stage 3, two ARs based on stage 2 results, will be implemented, and evaluated at Perley Health guided by the framework developed in stage 1 and evaluated through Secondary data and surveys. This research addresses gaps, offering a holistic view of LTC patients' and staff needs. It contributes by presenting an implementation and evaluation framework for future studies, providing LTC managers with evidence-based tools for AR implementation decisions, and supporting in addressing their challenges effectively.

### **POSTERS:**

### Danielle Cruise

Danielle Cruise is a PhD student in Management, specializing in Health Systems, at the Telfer School of Management, University of Ottawa. She is supervised by Dr. Mirou Jaana. Her research interests involve the adoption of health information technology solutions to improve the performance of long-term care homes. Previously, Danielle completed an Honours Bachelor of Public Health at the University of Waterloo and a Master of Science in Health Systems at the Telfer School of Management, University of Ottawa. Her



master's thesis focused on the factors that affect and inform long-term care manager's decisions to adopt health information technology solutions. This research was presented at the e-Health 2023 conference, held in Toronto. Danielle also works as a research assistant at Perley Health, Ottawa's largest long-term care home. Over the course of 3 years with the Centre of Excellence in Frailty Informed Care at Perley Health, Danielle has contributed to projects related to older adults' quality of life before and during the COVID-19 pandemic and the adoption of an assistive technology within the physiotherapy department, among others.

#### A Scoping Review: What are the Management Decision-Making Practices of Long-Term Care Homes When Adopting Health Information Technology?

Abstract: Canada's aging population has increased needs for admission to long-term care (LTC) homes. Many LTC homes lag significantly behind other areas of healthcare when adopting health information technology (HIT) and we have limited understanding of the decision-making practices of managers in LTC organizations when considering new technologies. This research aims to identify the breadth and scope of available research evidence on management decision-making practices in LTC related to HIT adoption. Following the Joanna Briggs Institute (JBI) guidelines, we developed a scoping review that used a comprehensive search strategy in three databases (OVID Medline, Scopus, and CINAHL) covering the areas of management decision-making, LTC homes, and HIT. Studies published in English that presented evidence on management decisionmaking practices related to LTC homes and HIT adoption were included. Two researchers extracted the relevant information from the articles using a coding scheme (93%) interrater agreement); disagreements were resolved by tiebreaker. Twenty studies between 2008-2021, conducted in 7 countries (11 in the United States), were included in this review. Professional experience was used in two studies to inform HIT adoption decision-making; otherwise, there was no information in the remaining 18 studies on how HIT decision-making was presented. Most studies focused on the adoption of electronic health records (40%). Managers were the stakeholder making IT-related decisions in the LTC homes (6 studies). Transformational leadership styles were found effective in making HIT decisions in two studies. Facilitators (e.g., organizational culture) and barriers (e.g., lack of confidence in research data) to HIT adoption were identified in 90% of the articles. Research evidence on the management HIT decision-making practices related to LTC homes is limited. More research is needed to understand the management HIT adoption decision-making, including why managers are not using research evidence to inform their decision-making, to facilitate transformation in this area.

# Ghazale Shoghaliniri

Ghazale Shoghaliniri is a PhD candidate in Human Resource Management and Organizational Behavior (HR/OB) working under the supervision of Dr. A.J Corner and Dr. Laurent Lapierre. She is interested in examining the bright and dark sides of workplace relationships and investigating how these aspects influence both individuals and teams' wellbeing. Before starting her PhD, she worked as a Startup teams' mentor at the Amir Kabir University innovation lab. That was the time she found that she wanted to know more about



how people gather as a team and what happens inside a team to make it work. Her thesis examines the interplay of conflict and trust in culturally diverse teams and how the simultaneous experience of conflict and trust impacts members' sense of belonging and turnover intention. By contributing to cutting-edge research, she hopes to help employees to be happier at work.

#### Conflict and trust in diverse teams

Abstract: The first objective of my thesis is to understand how and why conflict arises within culturally diverse teams; including teams of immigrants. For example, whether they be differences in communication styles, cultural norms, or varying perspectives on tasks and goals. Another crucial aspect of this thesis is exploring the role of trust in experiencing and managing conflict within multicultural teams. This encompasses understanding how trust, or the lack thereof, influences conflicts' creation, communication, and resolution. In the next phase, I aim to broaden the scope by investigating the interplay between conflict, trust, and the overall well-being of the team. The goal is to understand how conflict and trust affect members' sense of belonging to a group, as well as their turnover intentions. The research questions are best answered with a mixed method approach. A qualitative method can lead to a better understanding of conflict dynamics and the role trust plays in the process. Using the quantitative method, researchers investigate whether conflict, trust, and team wellbeing outcomes are related (e.g., sense of belonging, turnover intention). As part of the first phase of my research, I implemented a pilot study consisting of three semi-structured interviews with Iranian immigrants working in construction teams. The results showed three cultural factors - power distance, social ties, and values - impact team conflict and conflict resolution strategy. Furthermore, participants consistently mentioned trust as a critical factor in their experience of conflict. The pilot study revealed that intention to leave is a potential outcome of conflict in diverse teams. Participants also mentioned that ineffective interaction and identification among group members resulted in negative emotional outcomes during conflict. This introduces the "sense of belonging" as another potential outcome of conflict. In conclusion, Trust influences conflict in diverse teams, impacting team members' sense of belonging and intentions to leave.

# Soroor Motie

Soroor Motie is a PhD student at the Telfer School of Management, where her research is centered on the application of machine learning techniques in financial fraud detection. This passion for integrating Artificial Intelligence in Business is evident in her contributions, including publications in different conferences and journals such as the *Journal of Expert Systems with Applications*. Soroor's academic journey began at Iran University of Science and Technology, where she excelled as the top-ranking student for seven consecutive



semesters during her bachelor's degree. Her exceptional performance led to her acceptance as a talented student at Sharif University of Technology for her master's program. Here, she particularly stood out with her master's thesis on Advances in Graph Generative Models. This innovative work involved developing a framework for generating graphs applicable in diverse fields, from social media to biology, and introducing a novel evaluation metric. Her research interest primarily lies in graph and network modeling, utilizing Graph Neural Networks to tackle various machine learning tasks such as link prediction, classification, and community detection. This approach underlines her skill in adapting complex AI techniques to solve real-world problems. In addition to her research endeavors, Soroor has gained valuable teaching experience in courses like Data Mining Techniques, Business Analytics, and Time Series Analysis. Her diverse skill set is further enhanced by multiple internships in various industries, including e-commerce and technology, showcasing her ability to translate academic knowledge into industryrelevant applications. Beyond academia, Soroor was the chief editor of a student academic journal and actively engaged in voluntary activities, including organizing conferences and motivational talks, as well as mentoring high school students. She is also interested in translating her research into viable business ideas. This drive was acknowledged when she was awarded first place in the Rev-Up circuit business idea competition at the University of Ottawa, where she presented an innovative privacy tool for large language models.

#### Financial Fraud Detection using Graph Neural Networks

**Abstract:** The financial industry's significant growth in volume and complexity has been paralleled by a rise in sophisticated fraudulent activities. In 2022, the Canadian Anti-Fraud Centre (CAFC) reported over 91,190 fraud cases, affecting 57,055 victims and resulting in losses exceeding \$531 million. Traditional methods, such as human inspection and simple rulebased systems, are increasingly inadequate in addressing the complexity of these fraudulent activities. In response, we propose the application of deep neural networks, specifically graph neural networks (GNNs), to combat financial fraud. GNNs are a type of artificial intelligence that can analyze networks-like transaction networks-by understanding the connections and patterns within them. While GNNs have demonstrated effectiveness in predicting financial activities, their application in detecting fraudulent and anomalous activities is still limited in current literature. Our research surveys the use of GNNs in financial fraud detection, highlighting the lack of attention to the dynamic nature of transaction networks and the roles of various entities like financial services, companies, and users. We introduce a novel GNN model that incorporates heterogeneous nodes and links, with the capability to evolve over time, reflecting the real-world dynamics of financial networks. This model addresses the previous limitations of treating transaction networks as static entities. Furthermore, we approach fraud detection as a semi-supervised problem, a machine learning approach where the system learns from a small set of labeled data (known cases of fraud) and a larger set of unlabeled data (normal transactions). Our model combines supervised learning with an unsupervised approach that seeks to distinguish between normal and anomalous behaviors, enhancing its ability to identify new and complex fraudulent schemes. We validate our model using three benchmark datasets, ranging from credit card transactions to cryptocurrency networks. In the end, we aim to improve the performance of existing financial fraud detection models applying graph neural networks.

### Suraj Brar

Suraj Brar is a second year MSc In Health Systems student at the Telfer School of Management under the supervision of Professor Mirou Jaana. Previously, he attained a Bachelor of Science (Honours) in Life Sciences with the highest distinction at McMaster University in 2020. His research interests include aging research and the use of digital health technology in healthcare with a keen eye towards health equity. Currently, he devotes his time to working on his thesis project focusing on studying the impacts of a type of



digital health technology on patient outcomes at the University of Ottawa Heart Institute. Other academic endeavours include working on a project with a research team at the Bruyere Research Institute on studying the feasibility of implementing a novel memory aid technique for adults at high-risk of developing Alzheimer's Disease. Recently, he collaborated with a research team from Providence Healthcare (a subsidiary of Unity Health Toronto) on a project focusing on the use of comprehensive geriatric assessment in identifying care goals and referral services of older adults in a frailty intervention clinic. Outside of academic pursuits, he enjoys volunteering with the Canadian Red Cross, spending quality time with family and friends, playing a wide range of summer sports including soccer, golf, and tennis, and supporting his beloved Arsenal Football Club.

#### Interactive Voice Response Technology and Surgical Monitoring for Cardiac Patients in Pre-habilitation and Post-Surgery: Evidence of Impacts on Process and Outcomes Measures

Abstract: Coronary Artery Bypass Graft (CABG) surgery, a well-established procedure used to treat advanced heart disease, is an intensive procedure that regularly includes a lengthy and complex recovery. Recent research indicates the usefulness of improving CABG patient resiliency prior to surgery via a series of pre-operative interventions commonly known as prehabilitation. Recently, the University of Ottawa Heart Institute (UOHI) implemented a change to their prehabilitation program, the PreHab program, to include use of an automated telephone-based interview system known as interactive voice response (IVR) technology. Thus, the project aims to analyse the impacts of this change on different types of CABG patients' post-surgery outcomes. The author will conduct a post-hoc retrospective analysis utilizing secondary data. By comparing patient outcomes in terms of 30-day mortality, 30-day readmission, 1-day post PreHab enrollment short form 12 (SF-12) health survey (a self-declared quality of life survey) scores, 3 month, 6 month, and 1 year post-surgery SF-12 scores (while controlling for preoperative differences in risk owing to underlying risk factors), the study will provide insight into the differences, if any, that this change has imparted on different types of CABG patients. The author anticipates that the level of impact will differ based on individual patient pre-operative risk factors. Specifically, those with healthier preoperative risk profiles will derive a greater benefit to their post-operative outcomes from this process change when compared to their peers who have riskier pre-operative risk profiles. This study will provide further insight into whether IVR utilization in the PreHab program has impacted key post-surgery outcomes differently for different types of CABG patients. This will aid future decision makers and healthcare leaders when evaluating implementing technological innovations to modify existing pre-surgery programs that offer prehabilitation interventions as well as post-surgery programs that monitor recovery so that all types of patients benefit from doing so.

# Yasaman Gheidar

Yasaman Gheidar is a PhD candidate in the Digital Transformation and Innovation (DTI) program at the Telfer School of Management, University of Ottawa. She is working under the supervision of Dr. Lysanne Lessard and Dr. Yao Yao. She has a Master's degree in Information Technology Management and a Bachelor's degree in Entrepreneurship from the University of Tehran. She was recognized as the best student of her cohort at both levels based on her GPA and was awarded for her Master's thesis at the 29th



Research Festival of the University of Tehran. Yasaman is passionate about designing digitally enabled services that prioritize human needs in the digital service design process. Her thesis focuses on designing peer support systems to enhance trust among healthcare workers - a topic of significant relevance in the context of digital transformation in healthcare. She successfully defended her thesis proposal in December 2023. Professionally, she has significantly contributed to digital transformation projects in Iran, including work with the Ministry of Information and Communication Technology and several national banks. Outside of academics, Yasaman is currently a GSAED Representative of the Telfer School of Management and a volunteer on the ISAUO club (Iranian Student Association of the University of Ottawa) at the university. In her free time, she enjoys playing squash and kickboxing.

#### Towards Trustable Peer Support Systems for Healthcare Workers: A Theory-Driven Approach

Abstract: This research aims to support the design of peer support systems (PSS) for healthcare workers (HCWs), focusing on enhancing trust. Peer support programs (PSPs) are validated interventions for mitigating HCWs burnout and are increasingly delivered through information and communication technologies (ICT). While ICT-enabled programs offer convenience, they also present challenges related to communication barriers, perceived safety concerns, and low participation rates. Central to these challenges is the lack of trust in technology and participants. Thus, the research question is, "How can PSS be designed to address HCWs' lack of trust towards technology and other participants when participating in PSPs?" Research objectives will answer this question, including developing an information system design theory (ISDT) composed of meta-requirements and design principles. The methodology follows design science research and will be conducted in three phases. The first phase involves identifying the challenges of ICTenabled PSPs and developing a trust framework with multiple dimensions. In the second phase, the trust framework is integrated with PSS functionalities to develop a guiding framework. The guiding framework is then refined through expert interviews, and metarequirements and design principles are derived from it. Based on them, a prototype is developed that will be refined iteratively in multiple cycles. Finally, a pre-post experiment is conducted with HCWs to validate the meta-requirements and to refine the design

principles. The key result is the validated meta-requirements for trustable PSS. The secondary results are the refined design principles instantiated as a prototype and the refined guiding framework. Theoretically, this research enhances the knowledge of trust in information systems by identifying the specific trust types that impact activities within information system design. Practically, the findings offer valuable insights for system designers on creating trustable PSS and help healthcare administrators in selecting or adapting such systems for clinical environments.

### Alexandra Maharaj

Alexandra (Lexi) Maharaj is a first-year candidate in the Master of Science Health Systems program in the Telfer School of Management at the University of Ottawa under the supervision of Dr. Tracey O'Sullivan, admitted to the program under a Special Merit Scholarship. She has previously completed an Honours Bachelor of Health Sciences (Population and Public Health Option), and a Minor in Biology at the University of Ottawa as well. Her research focuses on chronic disease patients, hospital care disruptions, and



technological disasters such as cyberattacks. Currently, Lexi has a studentship at the Royal Ottawa Mental Health Centre working in the Institute of Mental Health Research in the Substance Use and Concurrent Disorders Unit, focusing on measurement-based research to improve patient care. Additionally, Lexi is working under University of Ottawa doctoral candidate Dina Idriss-Wheeler researching for her dissertation. The study concentrates on violence against women regarding lived experiences of intimate partner violence and access to social supports during the Covid-19 pandemic lockdowns, which has also recently been presented at the Pathways to Prosperity Conference in Montreal. Lexi's research focus is informed by her sustained interest in qualitative research, current work in the healthcare system, and past internships advocating for international health at parliament with multiple non-governmental organizations, creating a passion for equitable and accessible care for all.

#### Exploring the Lived Experiences of Patients Undergoing Chronic Disease Care in Ontario Amid Hospital Cyberattack Disasters

**Abstract:** The frequency and magnitude of cyberattacks on Ontario hospitals are escalating, impacting chronic disease care, as exemplified by the Eastern Ontario hospital cyberattacks on October 23, 2023. Existing research shows a lack of literature regarding a qualitative, patient-centric exploration into the lived experiences of patients subjected to subsequent impacts on care. Furthermore, patients who require continuous treatment rendered unavailable or limited in function at their usual point of care may further be physically, economically, and psychologically impacted due to sudden changes in care plans and other associated stressors. As Ontario's population is aging, morbidity

and multi-morbidity are increasing, setting precedence for converging crises, with this research filling a gap in this intersection. Braun and Clarke's (2006) thematic analysis procedure will be used in analysing semi-structured patient and provider interviews. In doing so, codes will be examined inductively to reflect the nuanced lived experiences of participants. Subsequent themes that are reflective of these experiences will be generated from grouping codes around a core commonality, or central organising concept. As such, this methodology takes an interpretivist approach to theme generation, therefore lending itself to having an experiential orientation, in which participants' communication of experiences is reflective of their internal state, inferred by utilising latent coding. Furthermore, this research methodology is situated within a constructionist epistemology, where the theoretical reality is constructed through conversation, and unique experiences that individuals ascribe differential weight towards are accounted for. Following analysis, themes will be comparatively analysed to existing disaster frameworks, grounding resulting similarities and differences to unveil efficient pathways for improving patient care during varied disasters. Accordingly, hospitals will benefit from tangible literature to inform evidence-based and collaborative care practices during cyberattacks, crucial for patients with chronic diseases reliant on consistent, fully functioning care.

# Defao Tchoffo

Defao Tchoffo is currently in his first year of the Master of Science in Finance program at the Telfer School of Management, under the supervision of Dr. Shantanu Dutta. Originally from Cameroon, he earned his engineering degree in Data Science and Statistics at ENSAE-Senegal. Throughout his training in Senegal, Defao gained practical experience through various internships. He served as a Commercial Intelligence trainee at Phillip Morris International Dakar, where he honed his skills in market analysis and business insights.



Additionally, he worked as a Statistician Engineer at the National Bureau of Assessment of the Senegal Development Plan, contributing to data-driven decision-making processes. He also worked as Data Scientist at the National Agency for Statistics and Demography of Senegal. Motivated by a keen interest in understanding global financial systems and finding tailored solutions for the economic challenges faced by developing countries, Defao decided to pursue graduate studies in Finance at Telfer. His research focuses on corporate finance, risk management, and investment banking. During his time at Telfer, Defao has been involved in the Telfer Graduate Research Programs Student Association, representing students from the management stream for the 2023-24 academic year. Outside of academics, Defao enjoys reading ancient Greek philosophy, particularly Stoicism. He's a beginner chess player and likes exploring new places. His journey is marked by a pragmatic approach to finance, a commitment to research, and a diverse set of personal interests.

# Optimizing Investment Decision-Making: A Machine Learning Approach in International Finance

Abstract: This research seeks to investigate an approach at the intersection of machine learning (ML) and international finance, emphasizing the significance of theoretical arounding in investment strategies., the study seeks to utilize ML tools to define investment attributes, emphasizing strengths such as out-of-sample predictability, complex specification learning, and robust variable search. The objective is to enhance decision-making in international portfolio management and risk assessment. Traditionally, investors relied on classical statistical models, such as mean-variance optimization (Markowitz, 1952), for portfolio management and risk assessment. These methods often assumed normal distribution and homogeneity, overlooking complexities in financial data. Investors faced challenges in accurately capturing non-linear relationships, coping with high-dimensional data, and adapting to changing market conditions. The limitations of traditional methods led to suboptimal decision-making. necessitating a shift towards advanced statistical and machine learning techniques to address these shortcomings and enhance the precision and adaptability of investment strategies. We aim to employ Gradient Boosting Machines (GBM), a machine learning model, leveraging an ensemble learning technique that builds a series of weak learners (typically decision trees) sequentially, with each tree correcting the errors of the previous one. While GBM has demonstrated remarkable efficiency in various decision-making contexts and has shown promise in areas outside finance, its application in financial decision-making remains underexplored. GBM has proven benefits such as improved predictive accuracy, robustness to complex data relationships, and adaptability to both qualitative and quantitative inputs (Friedman 2001, Chen 2016). We will require diverse financial datasets encompassing market indicators, asset prices, economic indicators, and geopolitical events. Additionally, we propose launching a survey targeting finance professionals and investors to gather insights on their current decision-making practices. This survey will provide valuable qualitative data to complement our quantitative analysis. This research will enhance decision-making precision, adaptability, and insight, advancing literature on innovative financial strategies.

# Mian Wei

Mian Wei is a PhD candidate at the University of Ottawa, conducting rigorous and innovative research on topics in corporate finance, such as executive compensation, payout policies, SPACs and IPOs, and investor behavior. He holds a Master of Finance degree from Tulane University. His research has been recognized and accepted by several major finance conferences, including the FMA Ph.D. Student Consortium, New Zealand Finance Meeting, the 36th Australasian Finance and Banking Conference, and SWFA. His job



market paper examines the relationship between within-firm pay inequality and corporate payout policies, providing both academic and practical contributions. Mian is passionate about advancing the knowledge and understanding of the financial markets and corporate decisions.

#### Within-Firm Pay Inequality and Payout Policies

Abstract: The Securities and Exchange Commission (SEC) adopted the CEO-median employee pay ratio disclosure rule and put into effect in 2017. In this paper, I utilize the CEO-median employee pay ratio as a proxy of within-firm pay inequality and investigate the CEO behavior in response to the within-firm pay inequality with a specific focus on its implications for corporate payout policies. My empirical tests are based on the signaling theory of corporate payouts. I employ panel data regression to examine the relationship between CEO pay ratio and payout policies. I include the year-fixed effects and firm-fixed effects to help mitigate concerns related to omitted variables, and the robust standard errors clustered at the firm level to account for the potential non-independence and nonidentical distribution of errors. The Study contributes to the financial literature by identifying an important factor that affects payout policy - CEO pay ratio. Meanwhile, it provides controversial results from pervious studies by showing that it is more appropriate to view CEO pay ratio as a proxy of within-firm pay inequality instead of a proxy of CEO talents and abilities. Regarding the results, the study reveals that following the release of CEO pay ratio disclosures, CEOs with higher pay ratios tend to issue higher dividend payments as a strategy to mitigate adverse reactions from the investors and market than those with lower pay ratios. The relationship between CEO pay ratio and dividend payouts remains consistent when taking into account various firm characteristics and external shocks such as the COVID-19 pandemic and overall market condition. Furthermore, I employ several robustness checks to validate the main results. Nevertheless, the results indicate that CEO pay ratio does not significantly impact stock repurchases, as the decision of stock repurchases is sensitive to exogenous shocks, and stock repurchases lead to potential shareholder base loss.

# Vu Chu

Vu Chu is a PhD candidate at the University of Ottawa's Telfer School of Management. His specialization Innovation is on and Entrepreneurship. His research interest consists of but not limits to informal entrepreneurship, entrepreneurial well-being, and high-growth entrepreneurship. Quantitative methodology is his strong suit, but Vu is beginning to include qualitative method components in his study add values to his research. Vu holds a number of prestigious credentials. He is member of



Association of Chartered Certified Accountants, holds a bachelor's degree in Applied Accounting, a master's degree in finance, all achieved in the UK with highest distinction. Vu also had a strong and diverse career in the public and private sector, including audit assistant at KPMG and public account at Vietnam Lottery Company. He also worked as assistant professor at National Economics University where he taught and supported local companies in strategic management development.

#### **Civic Engagement and Entrepreneurship**

Abstract: The role of civic engagement in promoting entrepreneurial intentions along with this relationship's underlying mechanism remains unclear. The purpose of the paper is to develop a theoretical model in which the relationship between civic engagement and entrepreneurial intention is mediated by eudaimonic/hedonic well-being. The model was tested on a representative sample obtained from the Gallup World Poll that consists more than 115,000 individuals across 36 countries around the world. The main methods are structural equation modelling and multi-level logistic regression model. We find that active engagement in activities to improve one's community, or to address wider public concerns, is strongly associated with the intention to start a business. More importantly, we highlight the mediation of well-being - with eudaimonic dimensions at its core - as the key benefits of civic engagement that provides emotional impetus for entrepreneurial endeavor. In contrast, the hedonic dimension of well-being plays a minor role in mediating the civic participation – entrepreneurship nexus. Embedded in Self-Determination Theory, this paper advances understanding in entrepreneurship research by (1) uncovering the formation of entrepreneurial intent from the psychological benefits of civic engagement, (2) disentangling hedonic and eudaimonic well-being, and (3) demonstrating well-being as important resources for venturing ambitions. Understanding the relationships identified in this research can help academics design educational programs that recognize and support these relationships. These programs may encourage people's involvement in social work that and provide supports for their ideas for entrepreneurial ventures. Governments may partner with social organizations to create business development support for civically engaged individuals, especially aimed at amplifying the psychological resources that may be gained from civic participation. In such contexts, institutionalizing civic engagement can accelerate progress towards change and prosperity.