The OPTIONS Program Presents

What Can I Do With A Masters In Engineering?

Tuesday November 23, 2021
6:00 – 8:00 pm ET

Alumni Guests

- **Ashok Tak**, Software Engineer, Scotiabank (MASc, ECE)
- **Danish Anis**, Data Science Consultant, Ernst & Young (MEng, MIE)
- **Elizabeth Maggs**, Environmental Consultant, Ramboll (MASc, CHE)
- **Jacquelyn MacCoon**, Senior Project Manager, New Projects, Standards Council of Canada (MEng, MSE)
- **Jim Prendergast**, Industrial Technology Advisor, National Research Council (Canada) (MASc, MIE)
- **Lei Lei**, Process EIT – Hydrometallurgy, Hatch (MEng, CHE)
- **Mahta Massoud**, Associate Engineer, Ripple Therapeutics (MASc, BME)
- **Martin Reader**, Project Manager, Martin Reader and Associates (MEng, CivMin)
- **Michael Freeman**, Senior Equity Research Associate, Raymond James' Equity Capital Markets (MASc, CHE)
- **Thanmayee Mudigonda**, Software Developer, Kinetyx (MASc, CHE)
Ashok Tak, Software Engineer, Scotiabank

Ashok is a Software Engineer in the Data Engineering team at Scotiabank. He completed his MASc in the Department of Electrical and Computer Engineering with a research focus on the smart grid and applied machine learning. He has held leadership roles in campus clubs including the Centre for International Experience’s Mentorship program, the International Students’ Caucus, and the Indian Graduate Students’ Association. Before joining U of T, he completed a Bachelor in Technology from IIT Roorkee, India and worked in industry for two years.

Danish Anis, Data Science Consultant, Ernst & Young (EY)

Danish is a Data Science Consultant at Ernst & Young (EY) focused on Anti Money Laundering compliance testing and Credit Risk Modelling for major banks. Prior to joining EY, Danish was a Data Science Intern at TD Wealth. He graduated from U of T in January 2021 with an MEng in Mechanical Engineering and an emphasis in Advanced Analytics. Danish’s academic work focused on using AI and Machine Learning tools for predictive maintenance of machines, building semantic search tools, NLP Topic Modelling, and Customer Attrition Prediction. During his studies he also supported the Anviv Mechatronics lab with the Computer Vision component of a robotics project. Danish loves interacting with people! His ideal day off involves movies, novels, and experimenting with recipes. Weather permitting, he never misses opportunities for marathon running and skiing. Danish is also a BPA certified skydiver and hopes to get his part-time diving instructor license!

Elizabeth Maggs, Environmental Consultant, Ramboll

Elizabeth completed her MASc in the Department of Chemical Engineering and Applied Chemistry at U of T, where she worked under the supervision of Professor Honghi Tran in the Pulp & Paper Centre. Prior to this, she obtained a BASc in chemical engineering at the University of Waterloo. She currently works for Ramboll, an environmental engineering consultancy, where she focuses on industrial air and wastewater quality, including modelling various emissions, designing pollution control systems, and carrying out life cycle analyses. Throughout her time at Ramboll, she has continually leveraged the various skills she developed and strengthened in her masters. She feels completing a masters degree allowed her to gain invaluable experience that has helped her to excel in her current position.

Jacquelyn MacCoon, Senior Project Manager, New Projects, Standards Council of Canada

Jacquelyn is an MSE 1T2T1+PEY and MEng 1T4 who took a scenic route to her current position as a Senior Project Manager at the Standards Council of Canada. Her team focuses on developing accreditation programs, for national and international certification bodies, on AI and Advanced Manufacturing. During her BASc and MEng at U of T, Jacquelyn focused on failure analysis and participated in a number of Troost ILead courses that transitioned her confidently into a Product Specialist role at Hitachi High Technologies Canada. From there, she grew into the Canadian National Sales Manager role for a mineral analysis start-up based out of the USA. Hungry for more school, she attained an MBA before moving into a management consulting firm, where her background in root cause failure analysis and corporate risk strategies dovetailed. Jacquelyn’s drive to learn and give back to the institution that set her up for success has remained constant over the years. Coaching, mentoring and student grants are some of the ways she continues to stay connected to Skule.
Jim Prendergast, Industrial Technology Advisor, National Research Council (Canada)

Since completing his MASc (Mech Eng, 8T9), Jim has enjoyed a fulfilling career in product development and research and development with Boeing Canada (deHavilland), Rolls Royce Canada (Bristol Aerospace), New Flyer Industries, and the National Research Council’s (NRC) Industrial Research Assistance Program. An early participant in U of T’s PEY program, Jim witnessed the first flight of deHavilland’s DASH 8 in 1983, returning to support the development of the Series 300 while completing his Masters. In 1990, Jim moved to Winnipeg where he developed aircraft accessories, remotely piloted vehicles, and a sounding rocket payload at Bristol. In 1996, he joined New Flyer, where he led the development of North America’s first Articulating Low Floor Transit and Hydrogen Fuel Cell buses. Despite these achievements, Jim traded his responsibilities as a senior manager for a better work life balance when he joined the NRC in 2002, where he supported the growth of a broad array of SMEs while raising his three children.

Lei Lei, Process EIT – Hydrometallurgy, Hatch, Hatch

Lei received his chemical engineering degree at the University of Ottawa in 2019. Following this, he then completed an MEng at U of T in November 2021. During his studies he focused on advanced water technologies, data science, and machine learning. Currently, he is a hydrometallurgy process EIT for Hatch, one of the world-leading engineering consulting firms based in Toronto. He designs innovative metallurgical processes to extract battery chemicals and rare earth elements. His daily work includes building mass and energy balance models, drafting process flow diagrams, and selecting materials for construction projects.

Mahta Massoud, Associate Engineer, Ripple Therapeutics

Mahta Massoud is a MASc candidate at U of T who is writing her thesis based on her time in the Frank Gu Lab. She also works full-time at Ripple Therapeutics, developing new systems for treating ocular diseases through medicinal implants. Previously, Mahta worked for AGFA in Belgium and as a research assistant at U of T’s Institute of Biomedical Engineering and the Isfahan University of Technology. In 2019, Mahta graduated from U of T with a BASc and a Minor in Nanoengineering.

Martin Reader, Project Manager, Martin Reader and Associates

Martin Reader has had a rewarding career in construction leading small and multi-million dollar projects within Canada and overseas (including Bermuda). He has worked in infrastructure construction (microwave towers, roads, pipelines, sewage treatment plants) and commercial and institutional building construction (office buildings, college residence buildings, schools, universities buildings, police forensic laboratories). Most recently, he was a General Manager at Hochtief where he worked on the OPP Modernization project, an initiative to construct new facilities for the Ontario Provincial Police. Through his career he has held many roles including Estimator, Project Cost Control Manager, Project Manager, General Manager, and small contractor owner. He has a BASc in geotechnical engineering and an MEng in civil engineering from U of T. He also holds an Executive MBA from Northland Open University.

Michael Freeman, Senior Equity Research Associate, Raymond James’ Equity Capital Markets

Michael Freeman is a Senior Equity Research Associate with Raymond James’ Equity Capital Markets group, where he covers biotech, med-tech, bioengineering, and cannabis companies. Prior to Raymond James, Michael worked in equity research with Paradigm Capital, in process engineering with WSP Global, and in science journalism as a freelancer. Michael holds an MASc in chemical engineering from U of T, where he focused on chemotherapeutic nanomedicines and their encompassing clinical and regulatory environments. Michael also holds a BASc in biochemical engineering from Queen’s University, where he focused on synthetic biology and industrial scale chemical and biological processes. Away from the desk, Michael enjoys exploring the trails surrounding Dundas, ON, where he lives with his wife, Amanda, his newborn son, Walden, and his dog, Spruce.
Thanmayee Mudigona, Software Developer, Kinetyx

Thanmayee has a versatile background in chemical engineering, materials science, and software engineering. After working for a couple of years in the pipeline industry, Thanmayee felt the need to pursue new challenging opportunities. This brought her to U of T, where she worked on nanofabrication of organic solar cell devices under the supervision of Professor Timothy Bender. After graduating with an MASc, Thanmayee completed an MEng from the University of Calgary in software engineering. Thanmayee now applies her diverse skillset in the start-up space. She works primarily as a software engineer at a start-up company in Calgary called Kinetyx, where she develops in-shoe sensor-based solutions for a broad range of sports and performance applications.