

EDUCATION

Bachelor of Applied Sciences: Materials Science and Engineering with minor in Advance Manufacturing,
University of Toronto (June 2020)

Awards and Achievement: David H. Samson Scholarship (April 2018) | James M. Toguri Scholarship (Feb 2018) | NSERC Undergraduate Summer Research Award (2017) | Dean's Honor List (2017, 2018, 2019)

RESEARCH AND WORK EXPERIENCES

Research Student (Toronto, Ontario, Canada)
In situ and Correlative Microscopy Group (September 2019-Present)

- Conducted literature review and developed research plan for automated quantification of microplastics in various wastewater samples using Scanning Electron Microscopy (SEM) and Machine Learning
- Defined Scope of work, developed design plan and project schedule for collection and documentation of data
- Performed SEM +EDS imaging in vacuum and variable pressure mode using Hitachi SU3500 to develop data sets
- Developed reports and presentations based on analysis and interpretation of data from multiple sources

Project Engineering Intern Pickering, Ontario, Canada
Ontario Power Generation, Projects and Modifications Department (June 2018 – August 2019)

- Organized and lead meetings to coordinate requirements of cross-functional team that included design engineers, technicians and external contractors to execute the project on budget with safety and quality
- Developed monthly forecasts which predicted monthly cashflow within a 5% deviation of the actual cost using pivot tables in MS Excel and provided weekly schedule updates to senior management and stakeholders
- Planned and coordinated execution of commissioning of modification which would result in saving of \$25 million
- Prepared Project Management Plan for a \$13 million capital project and collaborated on development of business case summary for funding gate process which included budget, scope, schedule estimates and risk assessments

Research Assistant Toronto, Ontario, Canada
Process Metallurgy Research Labs (PMRL) (May 2017 – September 2017)

- Conducted in-depth literature review to research optimal simulation conditions to replicate industry practices
- Simulated thermochemical reactions using macros in FactSage 7.0 and MATLAB in a self-designed mathematical model to study inclusion formation due to re-oxidation in a tundish during continuous casting
- Analyzed data from the simulations conducted using MS Excel and MATLAB to establish relationships and trends between various variables relating to tundish open eye and rate of formation of inclusions
- Selected to present results at UnERD conference through podium and poster presentation

TECHNICAL AND LABORATORY SKILLS

- **Technical Skills:** MATLAB, C programming, data modelling, SOLIDWORKS, Finite Element Analysis (ANSYS)
- **Computer skills:** Proficient with Microsoft Office Suite with advance experience in Excel, Access, Project, Word

Technical and Leadership Experiences

Co-Founder: hoopoloop, UofT Entrepreneurship Hatchery (June 2018 - December 2018)

- Launched hoopoloop, a startup focusing on storage solution for small spaces through Hatchery Nest 2018. The hoopoloop was one of the top 13 out of 118 companies, earning a spot at the Hatchery's Annual Demo Day
- Involved in research, design using SOLIDWORKS and prototyping the modular mounting solution
- Liaised with connectors and advisors for securing funding and development of manufacturing strategy

Advance Manufacturing Group Project for MSE 398 (September 2017 - April 2018)

- Designed various sized xylophone keys using SolidWorks and simulated pitch in ANSYS Workbench
- Involved in manufacturing of keys through sand casting and improved the surface finish to adjust tuning
- Presented a viable business case through report and presentation which won the People's Choice award