

# Navid Moghtaderi, Engineer in Training (EIT)

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## EDUCATION

### **Bachelor of Science in Mechanical Engineering**

*University of Calgary – Schulich School of Engineering*

**Calgary, AB**

*Sept 2017 – Dec 2022*

- Cumulative GPA: 3.6/4.0
- Graduated on Jan 1, 2023, with distinction and completed the internship program
- Awards: Jason Lang Scholarship, Darren Cooper Memorial Award

## WORK EXPERIENCE

### **Automation Engineer, Calgary Office**

*CoolIt Systems*

**Calgary, AB**

*Nov 2023 – Present*

- Developed automation systems that increase the production capacity by 3 times the standard capacity
- Worked with different PLCs, motor drivers, smart relays, and HMIs to create stand-alone automation cells
- Developed robot programs with UR and Epson robots for collaborative and industrial automation applications
- Coded AI-based vision systems for quality control of parts.
- Designed data logging interfaces to store data in local databases for product traceability and quality control
- Performed return on investment calculation on projects to prove projects' performance versus cost
- Presented weekly project updates to managers to track project milestones
- Demonstrated the ability to work under pressure for on-time delivery of the project

### **Research Assistant, Mechatronics Lab**

*The University of Calgary*

**Calgary, AB**

*Jan 2023 – Aug 2023*

- Worked and programmed UR5E and UR10E Universal robot for industrial automation tasks
- Developed AI models using TensorFlow for part identification in a pick-and-place task
- Created Python scripts to automate specific additive manufacturing steps
- Utilized hardware such as Raspberry Pi and Arduino to create passive RC low-pass filters
- Programmed cameras such as Basler and intelReal Sence and Keyence using Python for vision technology
- Developed communication skills through interacting with managers and colleagues during eight months of work

### **Student Project Engineer, Calgary Office**

*Cyntech Group, (EPC)*

**Calgary, AB**

*Jan 2021 – Jan 2022*

- Assisted the engineering team on a daily basis by preparing preliminary structural designs for helical piles
- Produced over 400 small-scale engineering drawings using AutoCAD for the manufacturing of helical piles
- Conducted over 80 budget estimates for projects to ensure that the project's cost met the client's expectation
- Managed manufacturing processes and helped in project execution to ensure the timely delivery of products
- Worked closely with internal and external stakeholders to define project scope and requirements
- Illustrated strong organizational skills by assisting and managing over 80 small-sized projects
- Documented one progress report for each project at the end of each month for future reference
- Presented project progress to the project managers every week to track milestones

### **Sales Associate, Northland Village Mall Branch**

*Designer Depot*

**Calgary, AB**

*Jan 2018 – Dec 2018*

- Achieved weekly sales targets by effectively promoting product quality
- Successfully managed weekly tasks within given deadlines while attending full-time school
- Showed flexibility with workload and responsibility in instances of short-staffing

## **RELATED SCHOOL PROJECTS**

### **Capstone Project**

**Calgary, AB**

*Computational Fluid Dynamic and Machine Learning*

*Sept 2020 – May 2021*

- Collaborated with a team of three to construct flow simulations using OpenFOAM
- Analyzed three different machine learning algorithms for flow prediction using MATLAB
- Scheduled and presented weekly meetings with coordinators to handle design, fabrication, and logistics problems
- Researched two different mathematical models to construct low-order flow models
- Created 2D and 3D mesh using ANSA for CFD flow modeling
- Validated multiple flow models through research in available scholars and papers
- Generated documentation, including a report and presentation to share project results with instructors and judges

## **TECHNICAL SKILLS**

Engineering Tools: SolidWorks, AutoCAD, Autodesk Inventor, ANSYS, Linux, VS-Code, OpenFOAM

Programming Lang: Python, C/C++, MATLAB, ROS, LabVIEW, HTML, CSS, Ladder Logic

Software: Microsoft Excel, Microsoft PowerPoint, Microsoft Outlook, Microsoft Word

## **INTERESTS**

Climbing, Hiking, Camping, Chess, Cars, Woodworking, Gardening, Snowboarding