Coleman Farvolden

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CAREER OBJECTIVE

Robotics Engineering student with a strong foundation in robotics, that's passionate and excited about the emergence of AI in the field of robotics. Seeking a position where I can use my skills to contribute to a team and gain real-world experience.

EDUCATION

Queen's University | Kingston, ON

B.S. in Mechatronics and Robotics Engineering | GPA: 4.08/4.30 -> 3.89/4.0 | **Standing:** Top 5% of class **May 2026**

Relevant Courses: Mechatronics and Robotics design, Signals and Systems, Data Structures and algorithms

TECHNICAL SKILLS

Programming: Data structures and Algorithms (Proficient), C++ (Competent), Python (Competent)
Software: Robot Operating System 2 (Proficient), Linux (Proficient), Computer-Aided-Design (Competent)
Hardware: Electromechanical assembly (Expert), Circuit building/testing (Proficient)

RELEVANT EXPERIENCE

Perk Lab | Robotics Researcher | Kingston, ON **May 2024 – August 2024**

- Created an open-source platform for scanning for breast cancer interoperatively during surgery with a 6-axis robot.
- Created an open-source platform for optical tracking during surgery using a 6-axis robot with a depth camera.
- Submitted two papers on track to be accepted at SPIE Medical Imaging 2025 - San Diego, CA.

Automation Engineer Intern | Proax | Mississauga, ON **May 2023 - August 2023**

- Built large electromechanical systems by assembling from CAD, electrical and pneumatic drawings.
- PLC programming with SQL database management, automated barcode reading, and MQTT communication.

PROJECTS

LifeBot | Autonomous Rover Project **April 2024**

- Collaborated in a team of 2 to develop an autonomous rover using ROS2 and Nav2 software.
- Designed and 3D printed an AED capsule to be mounted onto the rover for EMS transport.

Financial Modeling Software | Personal Project **May 2023**

- Created machine learning stock predictor using machine learning models with PyTorch.
- Created a stock predictor software using a simple regression analysis model, NumPy and Pandas.

AWARDS

Franklin B. Lee Memorial Scholarship | $16,400 | Queen's University **August 2024**

- Awarded on the basis of academic excellence, creative and original thinking, proven leadership skills, and involvement in school or community activities to a student with a cumulative GPA in the top 5% of their class.

USSRF (RESEARCH SCHOLARSHIP) | $10,192 | Queen's University **April 2024**

- USSRF research projects are 16-weeks of full-time work and are awarded to 70 undergraduate students.

PRINCIPAL'S SCHOLARSHIP | $4,000 | Queen's University **May 2022**

- Awarded to students in the top 5% of the competitive admission average for undergraduate degree program

NEXTGEN MEDICAL SIMULATION HACKATHON | $500 | Ingenuity Labs **January 2024**

- 1st place among 80 teams. Created a wearable "smart neck brace" for sensing movement in a patient's neck.

REFERENCES AVAILABLE UPON REQUEST