Matthew Ruigrok

ruigrokm@mcmaster.ca   linkedin.com/in/matthewruigrok   github.com/mruigrok

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OBJECTIVE

I am a third year Mechatronics Engineering student pursuing a software internship for Summer 2021. I am a dedicated worker with a passion for learning who is excited to contribute in a team environment.

EDUCATION

McMaster University, Hamilton, ON
Bachelor of Engineering Co-op (B. Eng), Mechatronics   GPA: 4.0
Expected Graduation - Dec 2021
V. Loukanov Engineering Scholarship (2020) and Deans' Honour List (2019, 2020)

RELEVANT COURSES

- Software Development • Data Structures and Algorithms • Operating Systems
- Signals and Systems • Dynamic Models and Controls • Scientific Computation

PROJECTS

Smart Response
- Built an app using Python, React Native and Node.js to notify first responders of potentially life-threatening events within seconds using live data from cityIQ nodes

Pacemaker Software Project
- Used Matlab and Simulink to deliver pulses according to a specific mode provided and Node.js to interface with the microcontroller and store user settings

GraphDB
- Simple database-like program built using Java that allows the user to create, search, save and reproduce graphs, which contain unique nodes and relationships

Autonomous Car
- Built a self driving car to navigate Udacity's road course using Python
- Trained model to determine WASD key press according to current screen capture

EXPERIENCE

Electrified Propulsion Systems Intern, Fiat-Chrysler   June 2020 - Aug 2020
- Developed a complete coolant flow model for a specific platform of electric vehicles using GT Suite tools such as GT-ISE, GT-POST and COOL3D
- Developed and simulated a controller for 2 coolant pumps to hit a specific flow target

Maintenance Technician, MB Animal Health   June 2016 - Sep 2019
- Hands-on experience wiring control devices into PLC such as overload-protected motor contactors, pneumatic solenoids, variable speed drives and bin level indicators

Volunteer Hockey Instructor   Sep 2012 - Apr 2019
- Demonstrated leadership and problem-solving while running skill sessions for 4-10 year old hockey players with Dunnville and Pelham Minor Hockey

TECHNICAL SKILLS

Programming: C, Python, Java, Matlab, JavaScript, HTML, CSS
Libraries and Tools: Git, Eclipse, IntelliJ, numpy, pandas, openCV, tensorflow
Other: Simulink, Autodesk Inventor, Cura, OpenSCAD, LabView, GT Suite, AVL

ADDITIONAL ACTIVITIES

- CEHL Hockey • Intramural Floorball • Dunnville United Soccer Club
- Jr. B Hockey (2016-19) • Deltahacks VI • Woodworking

AWARDS

Voiko Loukanov Engineering Scholarship	2020
Deans' Honour List	2019, 2020
Pelham Panthers Jr. B Hockey Leading Scorer (2 times)	2017-19
Governor General's Academic Medal (Dunnville Secondary highest average)	2016