Matthew Ruigrok

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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

Expected Graduation - Dec 2022

V. Loukanov Engineering Scholarship (2020) and Dean's Honour List (2019, 2020)

RELEVANT COURSES

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

TECHNICAL SKILLS

Languages: C, Python, Java, Matlab, JavaScript, HTML, CSS Libraries and Tools: Git, Eclipse, IntelliJ, numpy, pandas, openCV, sklearn

Other: Simulink, Autodesk Inventor, Cura, OpenSCAD, LabView, GT Suite, AVL

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

• Programmed microcontroller to deliver rate-adaptive pulses in 10 different modes using Matlab and Simulink and built a supporting GUI using Node.js

GraphDB

• Basic 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 simulated self driving car to navigate a road course using Python
- Trained model to determine WASD key presses 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

GPA: 4.0

• 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

 \bullet Demonstrated leadership and problem-solving while running skill sessions for 4-10 year old hockey players with Dunnville and Pelham Minor Hockey

ADDITIONAL ACTIVITIES

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

AWARDS

Voiko Loukanov Engineering Scholarship

2020

Dean's Honour List

2019, 2020

Pelham Panthers Jr. B Hockey Leading Scorer (2 times)

2017-19 2016

Governor General's Academic Medal (Dunnville Secondary highest average)