

Matthew Ruigrok

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EDUCATION	McMaster University , Hamilton, ON <i>Bachelor of Engineering (B. Eng)</i> , Mechatronics Graduated - 2022	GPA: 4.0
RELEVANT COURSES	• Software Development • Data Structures & Algorithms • Operating Systems • Robotics • Predictive & Intelligent Control • Embedded Systems	
PROJECTS	Cloud Based Home Automation System <ul style="list-style-type: none">• Worked alongside an industrial sponsor to develop a smart vent and blind actuation system with the goal of reducing household energy consumption Smart Response <ul style="list-style-type: none">• Built an app to process live data from city nodes and notify first responders of potential emergencies within seconds using Python, React Native, and Node.js Pacemaker Software Project <ul style="list-style-type: none">• Programmed an NXP microcontroller to deliver rate-adaptive pulses using Matlab and Simulink and helped build a supporting GUI using Node.js GraphDB <ul style="list-style-type: none">• Built a basic data storage program using Java that allows the user to create, search, save, and reproduce graphs, which contain unique nodes and relationships	
EXPERIENCE	Undergraduate Researcher , McMaster University Sept 2021 - Jan 2022 <ul style="list-style-type: none">• Designed and prototyped an over-the-air update pipeline that upgrades deep learning models deployed to client vehicles using Node.js, Matlab, and Simulink SDE Intern , AWS May 2021 - Sept 2021 <ul style="list-style-type: none">• Created a public-facing website using TypeScript and React and deployed it to AWS services such as S3, CloudFront, and Route53 with AWS CDK Controls Engineering Intern , Stellantis June 2020 - Aug 2020 <ul style="list-style-type: none">• Developed a coolant flow model and implemented a pump controller for a specific platform of electric vehicles using GT Suite, Matlab, and Simulink Maintenance Technician , MB Animal Health June 2016 - Sept 2019 <ul style="list-style-type: none">• Hands-on experience wiring control devices into PLC cabinets such as 3-phase motor contactors, pneumatic solenoids, variable speed drives, and point level indicators	
TECHNICAL SKILLS	Languages: C/C++, Python, Matlab, TypeScript, Java, SQL Libraries and Tools: Git, numpy, openCV, sklearn, tensorflow, Eigen, React Other: Simulink, Inventor, Cura, LabView, GT Suite, AVL	
ADDITIONAL ACTIVITIES	• Deltahacks VI • Intramural Floorball • Dunnville United Soccer Club • Hockey • Woodworking • Metal Fabrication • Car Enthusiast	
AWARDS	University Senate Scholarship Voiko Loukanov Engineering Scholarship Dean's Honour List Governor General's Academic Medal	2021 2020 2019, 2020, 2021 2016