

Matthew Ruigrok

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EDUCATION	McMaster University , Hamilton, ON <i>Bachelor of Engineering Co-op (B. Eng)</i> , Mechatronics Expected Graduation - Dec 2021	GPA: 4.0
RELEVANT COURSES	<ul style="list-style-type: none">• 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 in a small team with an industrial sponsor to develop a smart vent and blind actuation system to reduce household energy consumption Smart Response <ul style="list-style-type: none">• 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 <ul style="list-style-type: none">• Programmed NXP microcontroller using Matlab and Simulink to deliver rate-adaptive pulses in 10 different modes and built a supporting GUI using Node.js GraphDB <ul style="list-style-type: none">• Basic database-like program built using Java that allows the user to create, search, save, and reproduce graphs, which contain unique nodes and relationships	
EXPERIENCE	SDE Intern , AWS May 2021 - Sept 2021 <ul style="list-style-type: none">• Used TypeScript and React to create a new website and deployed to AWS services such as S3, CloudFront, and Route53 with AWS CDK Controls Engineering Intern , Fiat-Chrysler June 2020 - Aug 2020 <ul style="list-style-type: none">• Developed a complete coolant flow model for a specific platform of electric vehicles using GT Suite, Matlab, and Simulink• Implemented a coolant pump controller and ran a co-simulation with the coolant flow model to verify specific flow targets could be reached 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 level indicators	
TECHNICAL SKILLS	Languages: C/C++, Python, Matlab, TypeScript, Node.js, Java, Verilog HDL, SQL Libraries and Tools: Git, numpy, pandas, openCV, sklearn, tensorflow, Eigen, React Other: Simulink, Inventor, Cura, LabView, GT Suite, AVL, Keil IDE, OpenSCAD	
ADDITIONAL ACTIVITIES	<ul style="list-style-type: none">• Deltahacks VI• Intramural Floorball• Dunnville United Soccer Club• CEHL Hockey• Jr. B Hockey (2016-19)• Woodworking• Metal Fabrication	
AWARDS	University Senate Scholarship	2021
	Voiko Loukanov Engineering Scholarship	2020
	Dean's Honour List	2019, 2020, 2021
	Governor General's Academic Medal	2016