Brendan Arciszewski

www.brendanarciszewski.ca

Summary of Qualifications

- Programming in C, C++, & Python in embedded systems; used control theory with IMUs, vision system
- Designing with SolidWorks, AutoCAD, & GD&T; manufacturing with Mastercam
- Using *nix systems, regex, MATLAB, Microsoft Office, & Microsoft Windows

Relevant Experience

Government of Canada — *Ottawa, ON*

Software Developer — *September 2019 - December 2019*

- Designed and programmed Linux SPI command-line program for a tunable capacitor to simplify user-experience
- Debugged package dependencies and coordinated upgrades in an embedded codebase with Buildroot and Make
- Developed Debian-distributed Raspberry Pi touchscreen application with a barcode scanner using Qt QML and a backend REST API
- Tested and mocked C and Python code to check memory safety and network use; verified tests with Valgrind and debuggers

Software Developer — *January 2019 - April 2019*

- Designed an OpenAPI-described REST service, using Python, to communicate a standard API to many endpoints
- Automated software QA by analysing IDL files, using TDD and CI to create a build server, to ensure that incorrect builds aren't released
- Used Django, AngularJS, Bootstrap & jQuery to create a web app to improve user experience by using caching to reduce execution time to <10s

Electrical Contacts Limited — *Hanover, ON*

Junior Manufacturing Engineer, Co-op — *April 2018 - August 2018*

- Consulted operators and led meetings with management to determine the best path forward
- Worked independently to discover process issues, then implemented solutions with colleagues
- Designed and manufactured parts and assemblies using vernier, SolidWorks, and Mastercam
- Gathered data and created plannign documents using Excel so that information is easily retrieved

Various Student Teams — *Ontario*

Technical Lead & Organizer in FRC — *September 2013 - Present*

- Comprehensively documented the robot, design and strategy process; reflected on the Gantt chart and BoM
- Programmed, prototyped, and built a competetive base robot to inspire high-school students, with Ri3D Ontario
- Reduced robot mass to 80% of the typical 120lbs by optimizing layout with SolidWorks and DFM
- Worked with other leaders to debug Java, co-lead move to Git, mentor and develop strategies
- Used control theory with OpenCV, encoders, and IMUs to control drivetrains and shooting systems

Student Team Member — *September 2017 - January 2018*

- Designed and built a robot to follow lines and play sound based on grayscale output within a team of five

Education

University of Waterloo — *Waterloo, ON*

Honours Mechatronics Engineering, Co-op (BASc) — *2017 - 2022 (Expected)*

Certifications & Awards

July 2017	SHAD Fellow
May 2017	Diplôme d'études en langue française (Niveau B2)
April 2017	Schulich Leader Nominee