Mathew Galuszka

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EDUCATION

MCMASTER UNIVERSITY Hamilton, ON, Canada

Bachelor of Engineering & Biomedical Engineering - 3.8/4.0 GPA *Final Year*

Specialization: Mechatronics & Biomedical Engineering

Relevant Courses: Embedded Systems Design I/II, Analog/Digital Circuits, Real Time Systems & Controls, Biomedical Instrumentation & Measurement, Mech Eng Design Elements, Nuclear Technology Applications

WORK EXPERIENCE

MECHATRONICS ENGINEERING INTERN Alliston, ON, Canada

Honda of Canada Manufacturing *May 2024 - Aug 2025*

- Led multiple engineering projects from planning through implementation, managing project scope, schedules, stakeholder requirements, technical deliverables, and coordination with multi-disciplinary teams.
- Acted as the department SME for all production data collection, improving data reliability from first quartile to #1 department plant-wide by troubleshooting PLC/HMI logic and developing automated reporting using Excel VBA and other internal solutions.
- Supported engineering design, installation, commissioning, and maintenance of manufacturing equipment, including creating and updating electrical drawings, installing and validating 24-600V control panels, and ensuring code compliance through ESA and PHSR inspections.
- Designed and modelled steel/aluminum components for new equipment installation, validated completed assemblies, coordinated with machine shops for fabrication, and installed the delivered components.

LV ELECTRONICS TEAM MEMBER Hamilton, ON, Canada

McMaster Formula Electric *Oct 2023 - Feb 2026*

- Designed and iterated low-voltage control PCBs using Altium Designer and validated circuits through LTSpice simulations.
- Assembled, tested, and reworked PCBs in-house using oven reflow soldering, hot-air rework, and bench-level debugging tools such as meters and scopes.
- Developed a hardware-in-the-loop (HIL) test system to validate board functionality under simulated vehicle conditions prior to integration into the car.

RIDES ELECTRICAL TECHNICIAN Vaughan, ON, Canada

Canada's Wonderland *Mar 2022 - Oct 2022 | Mar 2023 - Oct 2023*

- Promptly responded to ride downtimes and utilized electrical diagnostic equipment to troubleshoot live electrical systems, resolve the root cause of issues, repair them, and get rides running in a timely manner.
- Conducted routine daily/weekly/monthly inspections on and preventive maintenance on 25 different rides electrical systems, adhering to TSSA and manufacturer guidelines.
- Executed electrical installations, rewires, and upgrades while complying with electrical codes.
- Utilized lockout/tagout procedures to ensure safe maintenance on AC/DC systems up to 600V.

SKILLS

Electrical: PCB Design (*KiCad/Altium*), Microcontrollers (*STM32, ESP32, Arduino*), Circuit Analysis and Simulation (*Multisim, Simulink, LTSpice*), Electrical Assembly and Installation (*PCBA, Panel Wiring*)

Software: Languages (*C/C++, Python, Matlab, Excel VBA*), PLC Programming (*Mitsubishi, Allen Bradley*), HMI Design (*Mitsubishi*), Data Collection (*ActivPlant, Excel*)

Mechanical: CAD (*Onshape, Solidworks, Catia V5*) Mechanical Design (*DFM/DFA, GD&T, Static and Dynamic Calculations*), Fabrication and Assembly (*3D Printing, Machined Part Assembly*)