

Vincent Chabot

Professional Engineer (P.Eng.)

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Summary

Electrical Engineer specializing in embedded software development as well as software/hardware integration and vehicle network architecture. Demonstrated history of cross-team collaboration to deliver functional and reliable systems. Passionate about EVs, the automotive field and everything related to embedded systems engineering.

Experience

Kodiak (Mountain View, CA)

Vehicle Integration Engineer

Feb 2026 – Now

- Own the integration, troubleshooting and build events for sensors, compute, actuation, and vehicle systems.
- Coordinate and execute builds with cross functional teams
- Provide Design-For-Manufacturing and Serviceability feedback for low to mid volume manufacturing processes.
- Drive build and system documentation creation such as drawings, schematics, and build instructions, and incoming hardware quality tests/checks.

Lion Electric (Montreal, Canada)

6 years

Technical Lead – Body Controls Software & Integration

July 2024 – Jan 2026

- Lead cross-team discussions to coordinate the implementation of diverse systems requiring software control, resulting in coherent solutions and seamless integration.
- Architect vehicle communication flow to ensure functionality, reliability and fault tolerance.
- Demonstrated vast expertise in vehicle network architecture, including in-depth knowledge of both low voltage and high voltage systems.
- Extensive experience with the CAN bus and SAE J1939 protocols.
- Conduct deep analysis of CAN data to identify and diagnose root causes of various issues.
- Contribute to DFMEA and HARA sessions to assess and mitigate potential risks in system designs, according to ISO 26262.

Sr. Embedded Systems Software Engineer – Body Controls

Sep 2022 – July 2024

- Led the end-to-end development and integration of Advanced Driver Assistance Systems (ADAS) functionality, enhancing vehicle safety, performance, and user experience.
- Completely redesigned and implemented cluster UI menus to meet technical and visual requirements, delivering an intuitive and aesthetically pleasing user interface.
- Performed thorough investigation and root-cause analysis leading to the successful identification and resolution of complex problems.
- Gained hands-on experience in CANalyzer, CANape, PCAN, PiSnoop, Kvaser, ActiGraf, Straton, MATLAB, Visual Studio, Embedded Wizard, Borgwarner DVT, TM4 Odin, DTS Monaco, Edibas.

Embedded Systems Software Engineer

June 2020 – Sep 2022

- Developed robust control software for various electronic control units (ECUs) and key components across the vehicle, such as cooling and HVAC systems, and a diverse range of fans, pumps, valves, solenoids, lights, sensors and actuators.
- Made use of the CAN bus and LIN bus protocols to integrate various software features and functionalities.
- Enhanced proficiency in C, Matlab/Simulink and Python through engagement in various projects.

Electrical Engineer – Low Voltage Systems

Jan 2020 – June 2020

- Designed and integrated low voltage harnesses for power distribution and vehicle networks.
- Test and validation of new designs and concepts.

WowWee Canada (Montreal, Canada)

5 months

R&D Embedded Systems Internship

April 2019 – August 2019

- Development of embedded software in C for Arm Cortex-M based microcontrollers (STM32F1, STM32L4).
- Performed design of electronic schematics and PCB layouts ensuring rapid prototyping and product validation.
- Gained first-hand knowledge in embedded systems by working on projects implementing protocols such as I2C, SPI, UART and USB.
- Developed expertise with tools such as KiCad, Eagle, STM32CubeMX, Keil uVision and Git.
- Made daily use of equipment such as oscilloscopes, multimeters, logic analyzers, soldering irons.

Zayo Group (Montreal, Canada)

1.5 years

Communication Technician – Tier 2 Support

Feb 2018 – April 2019

- Conducted diagnostics of technical problems using remote diagnostic equipment in order to identify root causes and implementing quick and effective solutions to minimize downtime.
- Acquired expertise with the Ethernet protocol and with various network architectures.
- Managed and resolved issues with outside suppliers, negotiating and overseeing the implementation of corrective actions.

Centum T&S Transportation (Montreal, Canada)

5 months

Hardware Designer Internship

April 2018 – August 2018

- Designed electronic circuits and PCB layouts using OrCad allowing for rapid prototyping and validation.
- Worked on creating detailed and comprehensive product documentation.
- Troubleshoot faulty product PCB, ultimately implementing a fix which managed to save hundreds of units marked as faulty.

Education

Bachelor's Degree in Electrical Engineering (EE)

August 2015 – December 2019

École de Technologie Supérieure (ÉTS), Montreal

Electronics Engineering Technology (Telecommunications)

August 2012 – May 2015

Dawson College, Montreal

Languages

- English (Native)
- French (Native)

Work Authorizations

- Canadian Citizen
- NAFTA Professional (TN) Visa

Professional Affiliations

- Member of the Quebec order of engineers (OIQ)