Andrew Lapadat

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SKILLS

- Experienced in C/C++, Java/Kotlin, Python
- Proficient at embedded software/firmware development and low level/bare metal design for performance and power sensitive environments
- Skilled at QNX, Qt, Android; comfortable using Docker, VMs, and deploying with CI/CD pipelines; knowledgeable in networking protocols such as UDP/TCP, CAN, automotive ethernet
- Exceptional at leading/growing teams, mentoring junior engineers, and managing external partner relationships, demonstrated through successful and timely product launches

EXPERIENCE

Ford Motor Company Ottawa, ON

Software Technical Lead Oct 2022 - May 2025

- Integrated digital horizon system which coupled camera information with 3D map data, leading to a 50% reduction in ADAS disengagement and increased safety of directions due to a live traffic view
- Developed the FordIME Android Automotive application and implemented new regional support enabling vehicles to be shipped outside of North America to Europe, Asia, and the Middle East
- Tripled an international team in headcount, headed hiring processes, expanded team scope, integrated new releases from vendor partners, and managed over-the-air updates impacting millions of vehicles
- Led the development of navigation and localization features on the Lincoln Digital Experience infotainment system, winner of MotorTrend's 2025 Best Tech and 2025 SUV of the Year awards

Software Engineer Jun 2021 - Oct 2022

- Designed a new Java UI library providing highly reusable and configurable components, which reduced the development time of new regional layouts for the FordIME Android application by 60%
- Built an automated verification tool using Qt and C++ for the SYNC3 platform that navigated the vehicle state machine based on desired configuration and yielded a 5x reduction in testing time

Software Developer Intern Sept - Dec 2019 | Sept - Dec 2020

- Built link from infotainment app user preferences to driver profiles for the SYNC4 Mach-E platform using CAN, TypeScript, Redux and enabled syncing the profile data with FordPass using REST APIs
- Implemented end-of-line automated diagnostic tests for the Mach-E vehicle to verify navigation, audio, and personalization functionality in newly built units as part of the plant certification process

1Password Inc. Toronto, ON

Software Engineer Intern May - Aug 2018 | Jan - Apr 2019

- Developed 1Password for Mac and iOS in Objective-C and Swift which achieved feature parity between the platforms for vault and permission management
- Prototyped the use of a common core written in Rust, shared between Apple client apps and the CLI as part of an initiative which eventually became 1Password 8's new architecture

PROJECTS

Thunderscope Application | Open Source Oscilloscope Client

- Created the first iteration of the Thunderscope client application using Electron, React, and Typescript, which graphed sampled data and provided scope functions such as trigger types and math functions
- Wrote a Node.js C++ add-on which used IPC sockets and DMA, communicating with the driver to retrieve and trigger on data sampled at 1GS/s while sending required user commands to the FPGA

EDUCATION

University of Waterloo 2021

Bachelor of Applied Science in Honours Electrical Engineering, Graduated with Distinction