ADAM WEBER

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PROFESSIONAL SUMMARY

Curious engineer with expertise in **networking, cloud, and automotive** domains. I thrive on collaborative innovation, bridging hardware and software to create something new. My journey has taught me the power of asking "what if?". Seeking to apply diverse skills to ambitious projects. Always excited to explore the latest tech and its wider implications.

EXPERIENCE

Ford Motor Company   Palo Alto, CA
Senior Engineer - Advanced EV Development "Skunkworks"   March 2024 - Present

- **Software Defined Vehicle (SDV) Platform**: Architect, build, and implement a standardized API framework and reusable component libraries for vehicle features and systems.
- **Rapid Prototyping**: Validate next-gen vehicle concepts using ESP32s and vehicle ECUs in real-world scenarios. Regularly present demos and progress to senior leaders, CTO, and CEO.
- **Cross-Language Build Pipeline**: Develop language-agnostic build pipelines using GitHub Actions and Jinja, enabling seamless multi-language implementations of the SDV platform.

Senior Software Developer - Test Automation   December 2022 - March 2024

- **Automated Testing Platform**: Led architecture and development of an automated testing platform for vehicle modules targeting remote access to CAN, LIN, and Automotive Ethernet. The platform decreased automated test time by 90%, securing buy-in from senior management for company-wide adoption.
- **Full-Stack Development**: Developed critical Python libraries, cloud infrastructure (GCP), and web apps (ReactJS/Flask) used by thousands of developers across the company.
- **Team Leadership**: Designed training curricula, conducted interviews, and wrote technical interview framework, driving 30% organizational growth within a year and significantly reducing onboarding time.

Prototype Engineer - Digital Product Design   June 2022 - December 2022

- **Rapid Solution Development**: Developed protocol (CAN) abstraction libraries using C++ and Python, slashing vehicle UI design-to-testing cycles from weeks to hours.
- **End-to-End Prototype Development**: Developed microcontroller firmware for ESP32s, while leading end-to-end vehicle prototyping including custom wiring, PCB assembly, and 3D-printed enclosures.

Software Research Engineer - Research and Development   June 2018 - June 2022

- **Project Leadership**: Led a global, multi-year project integrating IoT modules in hybrid vehicles, showcasing ability to manage complex, long-term projects and communicate progress to stakeholders at all levels. Developed cloud infrastructure (AWS), database (Mongo), frontend (ReactJS), and on-vehicle services (C++, Python).
- **Strategic Technology Evaluation**: Contributed to technical due diligence for multi-million dollar partnerships, including a pivotal Ford-Google collaboration, providing critical input on partner solutions.
- **EV Analytics Pipeline**: Developed and deployed EV data platform on CEO directive in two weeks, capturing 1,000+ charging sessions, showcasing rapid prototyping and data-driven solution delivery.

EXPERTISE

Technical: Python, Javascript, React, Linux, Raspberry Pi, REST, Cloud (GCP, Azure, AWS), MQTT, CI/CD
Leadership: Technical Mentorship, Strategy Planning, Product Management, Project Planning

PATENTS

Dynamic Control of Vehicle Drivetrain Modes   United States, Europe, China
Establishes a method to create low or zero emission geofences and controls hybrid vehicle drivetrains within those zones. Patent No. US17/531,137

Method for Locating Charging Stations using Ultra-Wide Band   United States, Germany, China
Establishes a method for using UWB vehicle sensors to navigate and position a vehicle near an electric charging station. Patent No. US17/733,190

EDUCATION

Michigan Technological University   Houghton, MI
BS Computer Networking (Magna Cum Laude)   September 2013 - May 2018