MATTHEW BERGER

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Founding engineer with 11 years Rust expertise (pre-1.0 early adopter), including 5+ years in production systems. Built food assembly robotics control suite from zero to production in 22 months, securing \$10M+ investment from Chipotle and Cava.

WORK EXPERIENCE

Hyphen (Culinary Robotics)

Remote

Staff Software Engineer (Founding Engineer)

September 2022 - Present

- Founded food assembly robotics controls suite as first engineer, driving technical pivot from PLC to Rust architecture and achieving complete product delivery in 22 months securing \$10M+ investment from Chipotle and Cava
- Engineered full technology stack from bare-metal firmware (RP2040/Embassy) to distributed robotics control system and cloud infrastructure, including custom Yocto Linux distribution
- Built core async message broker coordinating distributed processes on industrial PC with direct networking to embedded boards, handling 5M+ msgs/sec with <1ms latency, zero message loss over 3 years of constant use
- Transformed team of TypeScript/React developers into proficient Rust systems programmers through hands-on mentorship, establishing architectural patterns, and pair programming
- Designed deterministic layered configuration system enabling unlimited fleet scaling
- Created Hyphen Explorer tool achieving 100% adoption across all software engineers, ops technicians, and culinary operators for real-time IPC visualization, debugging, and system control
- Published open-source Rust crates with 200k+ total downloads (enum2str, enum2contract, enum2egui, enum2pos, enum2repr)

Hyphen (Culinary Robotics)

Remote

 $Senior\ Software\ Engineer$

July 2021 - September 2022

- Diagnosed critical scaling limitations in legacy PLC system preventing growth beyond prototype
- Led technical pivot from \$500K PLC system to embedded Rust architecture
- Prototyped RP2040 firmware with Embassy-rs
- Built AWS infrastructure with Docker, Kubernetes, and Pulumi while transitioning company to new technical direction

Sierra Nevada Corporation

Englewood, CO

Software Engineer III

May 2020 - July 2021

 \bullet Developed C++/Rust aerospace imaging system (5GB/sec) and simulator saving 3 months on delivery timeline

Scientific Games

Reno, NV

Software Engineer

July 2019 - May 2020

• Resolved critical performance and behavioral defects in a Unity-based casino-gaming platform

Hamilton Company

Reno, NV

Software Engineer

January 2018 - July 2019

Software Engineering Intern

October 2014 - December 2017

- Built safety-critical software for liquid-handling medical robots
- Automated gravimetric analysis QA process, saving 1+ week per robot across production fleet
- Reduced calibration development from 2 months to 2 weeks through reusable plugin framework
- Architected diagnostic application for largest OEM customer Illumina (\$2M contract)

EDUCATION