Simon Meili

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Systems-focused software engineer with 9 months of experience in embedded development within a Yocto Linux environment, specializing in secure firmware, cryptographic protocols, and system-level debugging. Co-founder and full-stack engineer with experience across embedded platforms, serverless architectures, and scalable cloud deployment pipelines.

Experience

Software/Firmware Engineer Intern at Schweitzer Engineering Laboratories (SEL) **December 2024 – Present**

Devices: SEL-3620, SEL-3622, SEL-3610 | Embedded Linux (Yocto) | C/C++ | Python | PHP | OpenSSL

- Developed secure firmware features for VPN/firewall devices, ensuring reliable certificate handling, RSA enforcement, and boot-time certificate recovery for encrypted communications of critical infrastructure networks.
- Resolved Year 2038 (Y2K38) issue on the device by configuring 64-bit time support on 32-bit Yocto Linux and creating a custom method to replicate 64-bit time on 32-bit PHP; traced time handling from PHP APIs to RTC firmware to systemd userspace to kernel source code, extending device lifespan by 10+ years.
- Performed kernel and userspace debugging via system logs, QEMU virtualization, and U-Boot traces to ensure reliability of multiprocessor embedded systems.
- Enhanced platform daemon to automatically detect and restore certificates with invalid Y2038 dates during boot, restoring customer data and maintaining long-term device viability with no added boot time.

Founding Engineer (20% Equity) at DevSwipe LLC **June 2025 - Present**

- Founding Software Engineer of a Gen Z-focused technical interview prep app offering coding questions with autofill templates, video explanations, and real-time code execution with instant feedback on results.
- Designed and optimized AWS Lambda–based serverless backend for safe user code execution
- Developed a TikTok-style video learning feature by streaming interview prep videos from Supabase storage, minimizing app size while delivering smooth playback, optimizing video load times by 70%.
- Helped design and implement Supabase schema, authentication, and edge function logic.
- Oversaw Android launch implementation and coordinated testing workflow.
- Contributed to product strategy, growth roadmap, and engineering scalability planning.

PROJECTS

Senior Project - Cloece (Cloudflare): *https://github.com/bens-schreiber/cloesce* **2025 - Present**

- Working directly with Cloudflare principal engineers to create an entity-first infrastructure as code (IAC) for instant serverless architecture deployment based on a single configuration file.
- Created a DSL compiler that converts Typescript into an Intermediate Representation for the Rust compiler to create Cloudflare Workers and D1 Databases from.
- Developing npm package that orchestrates the DSL and Rust compiler for seamless deployment.

Education

Washington State University, B.S. Computer Science, Pullman, Wa **Graduating May 2026**

Skills

Frameworks: Django | Vue | React | Flutter | uniitest
Tools: Yocto | QEMU | U-Boot| BitBake| Ubuntu | AWS Lambda | Docker | OpenSSL | Supabase | Git
Languages: Python | C/C++ | PHP | Javascript | SQL Server | PostgreSQL | Dart | Typescript