

Marie Bremner

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EXPERIENCE

Senior Software Engineer, Meta

2018 – Present

Reality Labs Dev Infra · 2024 – Present

- Built and shipped AI-powered tooling to expedite bug triage and root cause identification for Meta AR/VR's QA and engineering teams; cut average bisection time from half a day to 1–2 hours

Ads Serving Capacity Infra · 2023 – 2024

- Led efforts on a tiger team in Ads Serving Infrastructure to track and curb unbounded memory usage. Rolled out memory-based admission control infrastructure to block experiments estimated to exceed system thresholds.

Build Infra / Buck2 (Meta's internal build system)  · 2021 – 2023

- Led the open source launch of Buck2, Meta's internally built multi-language build system — built CI/release pipeline, ran the Reddit AMA; external projects adopted it within the first week
- Designed and rolled out remote dep file caching to the entire company to target cache miss inefficiencies commonly seen in Java/Kotlin builds
- Migrated and rewrote build rules for Windows as part of the Buck2 rewrite, and rolled out Buck2 Windows support company-wide

Magma (open-source mobile core network platform)  · 2018 – 2021

- Proposed and led migration from CMake to Bazel across all Magma services; build time dropped by more than half for key C/C++ services
- Drove end-to-end feature development for SessionD, Magma's session management component for carrier WiFi deployments
- Implemented the microservice framework that became the foundation for Magma 1.0, and the V1 REST API across all network types (LTE, WiFi, CWF, FeG)

SKILLS

Languages	C/C++, Python, Go, Rust, TypeScript
Technologies	Docker, Kubernetes, Bazel, Buck
Spoken	English, Japanese (native) · Mandarin Chinese, German (intermediate)

EDUCATION

Carnegie Mellon University — B.S. Electrical and Computer Engineering

2018

PUBLICATIONS

"Building Flexible, Low-Cost Wireless Access Networks With Magma", NSDI '23, Community Award Winner