

Richard Huang

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Experience

Software Engineer Niantic

April 2023 - Present Palo Alto, CA

- Lead ads team to re-architect entire stack from scratch, enable RTB and build custom ads SSP and DSP
- Designed and wrote microservices to handle geospatial indexing, rate limiting, central ad server, etc
- Mentored apprentices who all succeeded in converting to FTE; reduced company CI/CD costs by 50%; helped migrate company codebase to monorepo; created core emulator-based framework validation libraries

Production Engineer Meta/Facebook

Jan 2021 - April 2023 Menlo Park, CA

- Built prestart/poststop hook for cache services (Memcache, TAO, etc) for SEV prevention to conditionally clean up shared memory preventing OOMing issue with Twine; and CLI tool to clear cache on-demand
- Designed a capacity model for regional traffic fluidity and enabled autoscaling for memcache/mcrouter pools, reducing fleet size by 13+%
- Onboarded memcache onto continuous load testing for overload validation and capacity modeling

Production Engineer Intern Facebook

Jun 2020 - Aug 2020 Menlo Park, CA

- Built a stream processing pipeline test framework with a new Python -> IR Language -> Stylus C++ stack
- Implemented Python -> C++ compiler for complex and native static expressions for new pipeline stack

Software Engineer Intern 8th Wall

May 2019 - Aug 2019 Palo Alto, CA

- Programmed contract automation using Javascript, PostgreSQL, Stripe
- Automated application billing and upgrading
- Constructed new sign up flow for new console account system using React, Redux, Express, AWS Cognito

Projects

Homelab aeoly.us/s/homelab

Neverending Golang, Kubernetes, Docker, Ansible

- Self-hosted kubernetes cluster with a web server, media server, DNS sinkhole, password manager, file-hosting, monitoring system, Minecraft server, virtualization hypervisor, and more!
- Wrote a modular machine-agnostic script that sets up my homelab infrastructure with a single command
- Shortlinks powered by s.aeoly.us, my simple modern URL shortener written in Go

Cougle cogle.ml

Feb 2018 PHP, HTML, CSS, Linux

- Created an online anonymous peer-counseling forum with 300+ users to assist students in a high school with a 4:3000+ counselor to student ratio
- Demonstrated to and inspired school district board members to create an advice forum at our school

Education

University of California, Berkeley Computer Science BA

Aug 2018 - Dec 2020 3.84 GPA

Extracurricular: Upsilon Pi Epsilon (UPE) Computer Science Honor Society, Open Computing Facility (OCF) Staff
Coursework: Algorithms, Data Structures, Machine Structures, Operating Systems, Database Systems, Networking, Security, AI, Discrete Math, Probability Theory

Skills

Languages: Python, Golang, Rust, C, Javascript/Typescript, Java, Kotlin, HTML/CSS, Scheme, LATEX, SQL, Robotics
Tools: Kubernetes, Docker, Ansible, Chef, Bazel/Buck, Nix, PostgreSQL, Git, Linux, Bash, Vim, GDB, AWS, GCP
Human Languages: English (native), Mandarin (fluent), French (proficient)