Richard Huang

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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

Experience

Production Engineer   Meta/Facebook
Jan 2021 - Now   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
- Constructed new sign up flow for new console account system using React, Redux, Express, AWS Cognito
- Programmed contract automation using Javascript, PostgreSQL, Stripe
- Automated application billing and upgrading

Projects

Homelab   aeoly.us/s/homelab
Neverending   Golang, Docker, Ansible
- Wrote a modular machine-agnostic script that sets up my homelab infrastructure with a single command
- Self-hosted web server, media server, DNS sinkhole, password manager, file-hosting, monitoring system, Minecraft server, virtualization hypervisor
- Shortlinks powered by gull.ml, my simple modern URL shortener written in Go

Cougle   cougle.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

EVSD Web App   evsd.club
May 2016 - May 2018   Meteor.js, MongoDB, Linux
- Developed a web app that handles all logistics, 400+ users, member balances, $60k+year, tournaments
- Responsible for server upkeep, configuration, and reliable operation

Skills

Languages: Python, Golang, Rust, C, Javascript, Java, Kotlin, HTML/CSS, Scheme, LATEX, SQL, Robotics
Tools: Docker, Ansible, PostgreSQL, Git, Linux, Bash, Vim, GDB, AWS, GCP
Libraries/Frameworks: Node, Meteor, Stripe, React, Redux, Express
Human Languages: English (native), Mandarin (fluent), French (proficient)