

# Yuhui Chen

<https://stig-chalk.github.io/portfolio>

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## EDUCATION

### University of California Irvine

Sep 2018 - Dec 2021

Bachelor Degree, Computer Science, GPA: 3.94/4.0

- Undergraduate Research Opportunities Program Fellowship, Feb 2021
- New Venture Competition (Team GreenBite), Semi-final, May 2021

## EXPERIENCE

### Gemini, SRE & IT Team | TechOps Engineer Intern

Remote | Jun 2021 - Aug 2021

- Responsible for building a [Python](#) application that queries from internal services (e.g. Jamf), for IT engineers to monitor the health of company's computer fleet via Slack Slash Commands.
- Contributed to [AWS](#) group configuration (EC2, S3, ALB, Lambda) and [Nomad](#) Server deployment using [Terraform](#).
- Built the backend [API](#) with [Flask](#), and a request verifier (AWS Lambda) with [Go](#). Containerized the applications with [Docker](#).
- Utilized [Concourse](#) pipelines to automate application's build and deploy. Saved over 70% of the original manual processes.

### Live Good | Website Developer Intern

Irvine, CA | Aug 2020 - Mar 2021

- Responsible for updating and designing the company's [WordPress](#) and Shopify websites. Implemented interactive features (e.g. exit intent popup, video sliding marquee). Published 20+ new webpages ([HTML](#), [jQuery](#), [CSS](#)).
- Improved website [SEO](#) by 15% in 2 weeks by optimizing loading speed, user interface, and mobile friendliness.
- Helped reconfigure website's [Apache](#) server running on [Linode](#).
- Collected and sorted 200+ customer data for future business analytics ([Web Crawling](#)).

### Digital Learning Lab, UC Irvine | Backend Developer, Research Assistant

Remote | Jul 2020 - Apr 2021

- Responsible for maintaining a web server to collect real-time click stream and user-recorded videos.
- Implemented a [Spring Boot \(Java\)](#) application to provide [REST API](#) interfaces to retrieve & update data. Utilized GitHub for version control and IntelliJ for programming.
- Deployed the application on [AWS](#) with [Tomcat](#) server. Managed over 40,000 data on [MySQL](#) database. Designed database schema and reduced query time by 70% using indexing.

## PROJECTS

### Fabflix

Source Code: <https://github.com/stig-chalk/Fabflix>

- Built full-stack web app with [Java Servlet](#), [HTML](#), [Sass](#) and [jQuery](#). Used [Ajax](#) to interact with backend APIs.
- Managed 100,000+ data on [MySQL](#). Utilized full-text indexes and LEDA algorithm to support fuzzy search and autocomplete.
- Implemented database [replication](#) and a [load balancer](#) on separate AWS/GCP instances. Reduced the pressure of each server by 33%.
- Enabled reCAPTCHA and HTTPS to improve network security.

### Ghast Killer

Website: [https://nuayoas.github.io/Ghast\\_Killer/index.html](https://nuayoas.github.io/Ghast_Killer/index.html)

- Used [Reinforcement Learning](#) (PPO algorithm) to train the agent to play a predefined Minecraft mini-game.
- Used Python [Malmo](#) to set up the mini-game, and [Rllib](#) and [PyTorch](#) to build the model.
- Improved the learning speed by 30% and winning rate from 50% to 95%, by trying different models (neural network, random forest), rewarding policies, and observation metrics.

### Restroom Finder

Source Code: <https://github.com/stig-chalk/RestroomFinder>

- Developed the full-stack mobile app with [Android Studio](#), [Spring Boot \(Java\)](#), and [MySQL](#).
- Connected to Google Maps API to retrieve the geolocation information; implemented the [model-based recommendation](#) system according to user's preference and recent choices, and places' overall ratings.

## SKILLS

**Languages:** Python, C, C++, Java, JavaScript (jQuery, React, Ajax), HTML, CSS (Sass), Swift, SQL, Go

**Technologies:** MySql, MongoDB, Cassandra, AWS, GCP, Spring Boot, Flask, GitHub, Linux Shell, Terraform, Concourse, Tomcat, WordPress, Xcode, Android Studio, Spark, SonarQube API, Justinmind

**Skills:** Frontend/Backend/Mobile Development, Database Management, Machine Learning, Automation, Web Crawling