

# Haoyang Liu (Vincent)

## Software Engineer

### Contact

(949) 383-0000 · San Jose, CA

[haoyang.liu@sjsu.com](mailto:haoyang.liu@sjsu.com)

[github.com/lhy2016](https://github.com/lhy2016)

[linkedin.com/in/haoyang-liu-39156a164](https://linkedin.com/in/haoyang-liu-39156a164)

[haoyangliu.com](https://haoyangliu.com)

### Objective

Seeking a software engineer position, bringing professionalism from 2 years of full-stack experience and an MS Software Engineering degree. Familiar with modern web tech stacks and best practices. A cooperative person with good communication skills and willing to accept new challenges.

### Language

[Java](#), [Python](#), [PHP](#), [Javascript](#), [CSS](#), [SQL](#), [HTML](#), [XML](#)

### Tools and Standards

Spring MVC, Spring Boot, Flask, Django, Node.js, Bootstrap, SASS, React.js, Angular.js, AJAX, JSON, WebSocket, Docker, Nginx, AWS EC2, CloudWatch, Android, MySQL, PostgreSQL, MongoDB, REST, MVC, HTTP, SMTP, TCP/IP

### Education

M.S. in Software Engineering, San Jose State University

2020 - 2022, GPA: 3.7

B.S. in Software Engineering, San Jose State University

2015 - 2018

### Work Experience

Learn Education, Independent Off-sourcing Developer, Remote

Feb 2020 - Aug 2020

- Developed an education website independently including video courses, news, blog, forum sections, admin management, and logging system using **HTML**, **CSS**, **JS**, **jQuery**, **PHP**, and **MySQL** (<http://otp.whv.mybluehost.me/>)
- Managed development life cycles with Agile methodologies and communicated with party A to achieve delivery

DocSpot, Full-Stack Developer, San Jose, CA

Oct 2018 - Oct 2019

- Developed an internal-use **web crawler**, *Fetch*, in **Java** integrating **Chrome Devtools Protocol** and **Headless Chromium**; made it successfully collect 10M core business data records over 800+ websites quarterly
- Developed a data analyzing program using **Java** and **MySQL** independently; designed and implemented complicated SQL queries statements, which helped *Fetch* filtered out 90% of non-relevant links to hospital or clinic
- Developed a tracking system for *Fetch* by serializing its operations and storing them in the database in **Java**, **JSON**, and **MySQL**, which made *Fetch* restorable from the previous run; improved its usability and efficiency by at most 70%
- Developed a core map service used on production; implemented MVC and rendering changes using **Javascript** and **AJAX**; the service brought 20% potential users and completely save the budget of using other map services
- Designed and developed provider's card view for **SEO** purposes in **Spring MVC**, which would be indexed by the Google search results as sitelinks; applied data visualization using **Javascript chart library**(Apex Chart) to draw potential interest

### Internship Experience

CTI One Corporation, Software Engineer Intern, Santa Clara, CA

Sep 2017 - Feb 2018

- Implemented image augmentation for machine learning preprocessing purpose using rotation and Gaussian blur in **OpenCV Python**, which improved the preparation efficiency by 70%
- Conducted **performance testing** by adding round trip timestamp between different code blocks; detected the IO problem and completely removed latency; increased the overall run-time efficiency by 60%
- Corrected lane detection and turning logic with OpenCV, which made the autonomous vehicle successfully following the lane

DHTHX Tech. Co., Ltd, Software Engineer Intern, Dalian, China

May 2017 - Aug 2017

- Built enterprise product management desktop app using **C# .NET** interfacing Oracle database; successfully learned basic **C# .NET** development and basic database CRUD operations

### Projects Experience

HomeFinder, [homefinder.haoyangliu.com](http://homefinder.haoyangliu.com)

- Developed a real estate website that users can search, rent, buy, or list properties using **React.js**, **Python Flask**, Flickr **CDN**, and **MySQL**; deployed on **GCP** with **Docker** and added **Nginx** as a proxy server and load balancer

- Added **message queue(Kafka)** between property posting(server-side) and image uploading(Flickr API) services
- Managed the team and development process using **Agile** methodologies as a scrum master; held weekly scrum meetings, recorded progress with burn-down chart, organized backlog items, assigned tasks, and conducted retrospective meetings

#### Personal Website, [haoyangliu.com](http://haoyangliu.com)

- Developed personal portfolio site with **HTML, CSS, Javascript** and **PHP** integrating **Mailgun** for email sending service; developed a very challenging tic tac toe bot using **Javascript**
- Deployed on **GCP** with **Docker** and added **Nginx** as a proxy server; configured wildcard **SSL** with letsEncrypt on **Docker**

#### Investment Assistant, [invest.haoyangliu.com](http://invest.haoyangliu.com)

- Developed a web app using **Flask** that assists users to make smart investment decisions on stocks and ETFs; developed a service that caches **Yahoo Finance(yfinance)** data and regularly updates local data that greatly reduced the delay(80%) of API query
- Used **ThreadPoolExecutor** to make the data service and web app backend run in parallel

#### Job Scraper

- Designed and developed a job searching automation tool for personal use using **Python Selenium**; encapsulates common web-browsing behaviors and parses input **XML** files to support multiple sites