

Haohua Su

415 W 120th St, New York, NY | (212) 518-6797 | shhsuhaohua520@gmail.com | <https://github.com/suhh1123>

SUMMARY

Seeking an internship software engineer position

Solid software engineer with strong programming, analytical and communication skills. Has a wide range of software development related project experience, including **full-stack web service development**, **recommendation system** with **Java**, **JavaScript** and **React**, 5 years of programming experience with solid data structure and algorithms foundations

EDUCATION

Columbia University, Fu Foundation School of Engineering and Applied Science

New York, NY

M.S. in Electrical Engineering

Expected Dec 2022

Huazhong University of Science and Technology (HUST)

Wuhan, CN

B.S. in Optoelectronic Information Science and Engineering, GPA: 3.61/4.0

Sep 2016 - Jun 2020

SKILLS

Programming Languages: MATLAB, Java, Python, C, HTML, CSS, JavaScript, SQL

Techniques: RESTful services, AWS, Android Development, MySQL, Microservices, Kubernetes

Frameworks: Spring Boot, Spring MVC, Spring Security, Spring WebFlow, Spring Cloud, Django, Hibernate, React

EXPERIENCE

UAV Delivery Management System – TuFastly

Nov 2020 - Dec 2020

- Pulled off a management system for a logistics company that uses robots and drones to deliver packages, featured with user sign-up and login, robot or drone selection, route and price preview and order placement
- Led a team of 5 members to manage **back-end development**, and be responsible for route preview and route optimization feature, assisted database design and connected members from front end to make sure features deliver
- Organized teamwork, members communication and tasks synchronization with the help of **JIRA**, **Git** and **Slack**

Spring based Shopping System

Sep 2020 - Oct 2020

- Employed **Spring MVC** to support item search, listing and other business logics, database operations in application, centralize and manage object construction with Dependency Injection
- Integrated security workflow via in-memory and **JBAC** authentication provided by **Spring Security**
- Utilized **Hibernate** to simplify database operations
- Streamlined check-out process with **Spring Web Flow**

React JS based Starlink Trajectory Visualization

Sep 2020 - Oct 2020

- Developed a visualization dashboard leveraging **ReactJS**, **AntD** and **React Simple Map** to track satellites based on predicted coordinates data within a time span achieved from **N2YO API**
- Provided a search form for users entering longitude, latitude, altitude, and radius information to pinpoint satellites in a certain range
- Displayed information for those satellites in search range for users to select
- Animated selected satellites paths on a world map and recorded track with smooth curves

AWS based Web Service Development – Job Recommendation

Aug 2020 - Sep 2020

- Created a system deployed in **EC2** with 3 Java servlets with **RESTful APIs** to handle HTTP requests and responses
- Fetched positions data from **Github Job API** and stored favorite records in **MySQL** database on **Amazon RDS**
- Capitalized on **MonkeyLearn API** to extract keywords from descriptions of positions
- Designed a **content-based recommendation algorithm** to implement job recommendation
- Developed an web page for user interaction (search and favor positions) with **HTML**, **CSS**, **JavaScript**

Image Intensification in Hybrid Space Based on MATLAB

Sep 2019 - Jun 2020

- Built a GUI containing 5 types of noise and 11 types of filter model to visualize noise impact on images and filter effect
- Proposed an improved **histogram equalization algorithm IPDCLHE** and dramatically improved brightness preservation performance and unnatural enhancement of **DCLHE**
- Compared **IPDCLHE** performance with 9 types of mature histogram equalization algorithms such as **QDHE**, **BHEPL** in terms of 7 objective indicators such as GMSD, AMBE, Information Entropy

LEADERSHIP

Head of International Exchange Department, Students' Union of HUST

May 2018 - May 2019

- Organized over 20 information sessions including college admission, company recruitment, and lectures
- Held over 15 original activities, such as International Student Orientation and Cultural Exchange Activity
- Received exchange delegations and foreign college visitors from over 20 countries