# Shuai Huang

Address: 1897 Ellen Ave, San Jose, CA 95125
Tel: 415-802-5566 | Email: shuaih@andrew.cmu.edu
LinkedIn: www.linkedin.com/in/shuaih


## EDUCATION

**Carnegie Mellon University, Silicon Valley** 12/2021
*Master of Science in Electrical and Computer Engineering*

**University of California, San Diego** 03/2019
*Bachelor of Science in Computer Science*

## PROFESSIONAL EXPERIENCE

**Snap Inc.** *Remote - team in Los Angeles, CA* 06/2021 – 08/2021
*Software Engineer Intern*

- Designed and developed an Offline SLA Tool (on production) using **Python** to extract runtime insights from **Airflow**'s internal **MySQL** database and shorten the time cost of error detection from hours to minutes.
- Used **Federated Queries** on **BigQuery** to bypass staging data storage and directly retrieve runtime data from MySQL, therefore simplifying the process of data retrieval and storage by 30%.
- Upgraded Snap's Airflow version (open-source project) and integrated UI to enable customers to backfill previous pipelines without logging into the remote environment.

**Hive AI** *San Francisco, CA* 05/2019 – 02/2020
*Software Engineer Intern*

- Designed and automated data pipeline in **NodeJS** with **RabbitMQ**, and **PostgreSQL** to flow tasks for Data Labeling projects. Used **AWS S3** to store more than 100 GB data, and **Jenkins** and **Marathon** to increase concurrency and help speed up the process by more than 5X.
- Scrapping in NodeJS more than 1,000,000-hour video footages from YouTube and more than 100,000 photos from social media through tools such as youtube-dl, and cheerio to train Labeling and Speech Recognition models.

**Morgan Stanley** *Shanghai, China* 07/2018 – 09/2018
*Software Engineering Summer Analyst*

- Built Backend System of an order tracing tool in **Python** for Listed Sales & Trading Team, saving more than 2 hours daily locating issues if an order is not sent to the exchange.
- Improved performance by 2X by utilizing a cache that maps connections to processes.

## PROJECT EXPERIENCE

**CORBA Fault-Tolerant Distributed System** 06/2020 – 08/2020
*Distributed System Course Project at Carnegie Mellon University*

- Replicated servers both passively and actively in **Java** with **Spring Boot** to achieve fault masking and maintain consistency across servers deployed on separate **EC2** instances.
- Bridged communications through **RESTful** requests among Replication Manager, Detectors, and Servers to perform operations such as checkpointing, membership update, and detection.

**Mini-Ins** 04/2020 – 05/2020
Link: https://github.com/omishuai/miniIns
*Personal Project that Mimics Instagram's Backend Features Using **Spring Boot***

- Allowed services to interact via **RESTful APIs,** such as POST and GET, and exchanged photo, message, comments, and user information through **Spring Data JPA** and **MySQL** to store and retrieve.
- Created a messaging system through **WebSocket** and locking mechanism to allow user intercommunication.
- Customized Authentication and Authorization in Spring Security Filters and secured user interaction with backend through **JSON Web Token** (**JWT**).
- Testing tools: **Unit Testing** (**Junit**), and **Acceptance Testing** (**Cucumber), H2** and **RestTemplate.**

## SKILLS

Programming Languages: Java, SQL, NodeJS, Python

Database & Cloud Technologies: MySQL, MongoDB, PostgreSQL, H2, RabbitMQ, RESTful, AWS (EC2, S3), Docker, Kubernetes, BigQuery, Airflow

Frameworks and Services: Spring Boot, ExpressJS, RESTful

Development Solutions: JIRA, Git, Perforce

Experienced Areas: Distributed System, Backend Development, Databases, Agile Development