Shuai Huang

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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

- working on **Airflow** pipelines (**Python**), and technologies include **Kubernetes**, **BigQuery**, **MySQL**, **GCP**

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, and to integrate ML models into clients. 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.
- Developed visual cash order flow (a network of tree structured connections) to save 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
Personal Project that Mimics Instagram's Backend Features Using **Spring Boot**
Link: https://github.com/omishuai/miniIns

- 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**).
- Tested with **Unit Testing** (**Junit**), and **Acceptance Testing** (**Cucumber**). Also, for testing purpose, replaced MySQL with **In-Memory Database H2,** and sent HTTP requests with **RestTemplate**.

ChatApp DAO   03/2017 – 06/2017
Collaborative Project that Builds a ChatApp through CodeU Program at Google

- Implemented data access and validation component to **MySQL** using **Java** and **JDBC**.

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