

Shuai Huang

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EDUCATION

Carnegie Mellon University, Silicon Valley <i>Master of Science in Electrical and Computer Engineering</i>	08/2020 - 12/2021
University of California, San Diego <i>Bachelor of Science in Computer Science</i>	09/2016 - 03/2019

PROFESSIONAL EXPERIENCE

Snap Inc. <i>Remote - team in Los Angeles, CA</i> <i>Software Engineer Intern</i>	06/2021 – 08/2021
<ul style="list-style-type: none">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 by 70%.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 <i>San Francisco, CA</i> <i>Software Engineer Intern</i>	05/2019 – 02/2020
<ul style="list-style-type: none">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.Scrapped 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 <i>Shanghai, China</i> <i>Software Engineering Summer Analyst</i>	07/2018 – 09/2018
<ul style="list-style-type: none">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 <i>Distributed System Group Project at Carnegie Mellon University</i>	06/2020 – 08/2020
<ul style="list-style-type: none">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 Link: https://github.com/omishuai/minilns <i>Personal Project that Mimics Instagram's Backend Features Using Spring Boot</i>	04/2020 – 05/2020
<ul style="list-style-type: none">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