

# HAOSONG LI

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## EDUCATION

### Carnegie Mellon University

December 2021

Master of Science in Electrical and Computer Engineering; **GPA: 3.55/4.0**

### The University of Texas at Austin

August 2020

Bachelor of Science in Electrical and Computer Engineering; **GPA: 3.7/4.0**

## WORK EXPERIENCE

### Software Engineer

#### PearSquare, Mountain View, CA

01/2021-12/2021

- As a founding engineer, built a college admission consulting marketplace from scratch with **React**, **Express.js**, and **Postgres**, and attracted 50+ users within the first month and maintained rapid growth
- Launched main features such as chat rooms, mentor profile pages, and payment with **Stripe**
- Drove **GraphQL** integration into application, and coached team members with knowledge ramp up
- Implemented a logging system with **Mixpanel** to track viewers impression and support A/B testing for marketing strategy analysis and product prioritization
- Set up testing framework in **Jest** and **CI/CD** pipeline with **CircleCI** to catch bugs and automatically alert engineers before production release

### Software Engineer Intern

#### Schlumberger, Menlo Park, CA

06/2021-08/2021

- Replaced manual inspection process and reduced cost by 10 times by building an autonomous inspection application using **computer vision** with **Python** to detect faulty bits on the drilling heads
- Implemented a **Python** Robot Operating System module that streams geolocation data from detection camera to the robot arm which automates robot movements with cameras instead of manual commands
- Participated in Hackathon to help the company identify security weaknesses in the system

### Software Engineer Intern

#### ZTech, Austin, TX

05/2020-08/2020

- Boosted real estate lead generation by 10 times through streamlining real estate selection process by integrating with **Chatbots** and **Facebook Marketing API**
- Built a **React** based video editing application from scratch which allows real estate agents to edit and generate video clips in **AWS** cloud service and upload to YouTube in real time
- Steered a six-person engineering team following **Agile** values and applying **scrum** framework to manage tasks

## PROJECTS

### Twitter Analytics Web Service – CMU

02/2021-05/2021

- Established a web tier to accept **RESTful** requests and a storage tier to store twitter data, executed **ETL** process on a 1TB dataset on **Azure Databricks**, with 44,000 requests/sec throughput and 100% correctness
- Deployed **Dockerfiles** and **helm** charts to containerize web tier with **AWS EKS**

### Wildfire Emergency Social Network – CMU

09/2020-12/2020

- Developed an application with **Node.js** and **Express.js**, and **MongoDB** for emergencies like wildfires
- Implemented map for civilians to visualize, pinpoint, and report fire locations nearby
- Optimized and tested website functionalities using **Jest** that caught 12 issues
- Defined use cases for each phase and applied **Agile** (Scrum and Kanban) as software engineering methods

### Research Match Website – UT Austin

09/2019-05/2020

- Developed a **Flask** based website for matching students' interests with faculty's research projects and obtained over 100 students and 20 faculty members with their projects listed as initial users in two weeks
- Redesigned and refactored the majority of the code base to improve the readability and reliability of the app
- Embedded matching algorithms on backend and optimized frontend filtering UI to be more user friendly

## EXTRACURRICULAR & ACADEMIC ACTIVITIES

### CMU, Graduate Teaching Assistant - Foundations of Software Engineering

02/2021-05/2021

- Guided 10 students with their full stack projects and taught recitation sessions

### UT Austin, Illinois Institute of Technology, Academic Peer Tutor

01/2018-05/2020

- Tutored more than 150 students and helped to solve Mathematics and ECE topic problems
- Mentored over 50 students with peer academic advising on college life and courses

## SKILLS

Programming Languages: Java, Python, JavaScript, TypeScript, HTML/CSS, Node.js, C/C++, SQL, Scala

Frameworks: React, Angular, Flask

Database: MongoDB, MySQL, Postgres

Version Control: Git

Cloud: AWS, GCP, Azure, Kubernetes, Docker