

Honghu Luo

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EDUCATION

University of Southern California

Master of Science, Computer Science

– *Relevant Coursework: Machine Learning, Deep Learning, Algorithm, Database Design*

Los Angeles, CA

Aug 2021 - May 2023

University of Arizona

Bachelor of Science in Computer Science; Minor in Japanese

Tucson, AZ

Aug 2016 - May 2020

WORK EXPERIENCE

[LinkedIn](#)

HuupAI

Backend Software Engineer Intern

San Francisco, CA

Sep 2023 - Present

- Implemented web scraping backend using **Scrapy** and **Django**, enabling the systematic extraction of valuable ML models from diverse open-source repositories, encompassing data cleaning and transformation for seamless integration.
- Developed real-time data synchronization powered by **Kafka**, allowing seamless streaming of changes from **MongoDB** to **Elasticsearch**, improving our platform's search capabilities, providing users with rapid access to our collections.
- Integrated prompt tuning and batch inferences into our production environments, utilizing the advanced capabilities of **NVIDIA NeMo**, bolstering our ability to deploy cutting-edge models in real-world environments.

Amazon

Software Development Engineer Intern

Tempe, AZ

May 2022 – Aug 2022

- Developed a web application using **React**, integrated with an internal proxy service for a user-friendly UI, and conducted testing with **Jest**. Established a frontend portal with **API Gateway** and event connection with **AWS Lambda**.
- Designed and deployed **RESTful** APIs with **Spring Boot** on **AWS Lambda**, resulting in a 20% performance improvement for migrating databases and API calls. Implemented unit and integration tests with **Mockito**.
- Utilized **DynamoDB** for efficient data storage and set up **Amazon S3** buckets for handling static data. Improved data transmission speed with **CloudFront** edge computing and CDN for caching.
- Implemented infrastructure as code using **AWS CDK** and monitored and resolved issues with **AWS CloudWatch**.

LEADERSHIP EXPERIENCE

Amazon ADFS Hackathon | *React SpringBoot*

June 2022

- Award: Full-House (Won out of 40 teams)
- Utilized **React** and **Spring Boot** to design a new layout for the Amazon shopping page.
- Conceptualized and developed an intuitive user interface that successfully encouraged a 70% increase in customer engagement with environmentally friendly actions throughout the fulfillment process.

PROJECTS

[GitHub](#)

Flare Zone | *TypeScript HTML/CSS Docker Figma Vite Nginx*

Summer 2023

- Led the development of a contemporary frontend application using **React**, **TypeScript**, and **CSS**, enhancing user experience and device compatibility.
- Collaborated with a cross-functional team of 20 engineers and Product Managers to deliver a robust solution, designed an intuitive user interface and implemented em units for seamless device compatibility using **Figma**.
- Orchestrated the deployment of the frontend application, ensuring optimal performance, by containerizing it with **Docker** and integrating it with **Nginx**.

Generating novel videos with Background-Foreground Panorama Analysis | *PyTorch OpenCV* Fall 2022

- Achieved a 90% reduction in processing time by implementing a hierarchical search algorithm for computing motion vectors, surpassing traditional brute force methods. Proficiently detected foreground objects and seamlessly integrated them into a unified background panorama using **OpenCV**.
- Improved video quality through fine-tuned **Deeplabv3** model, resulting in the successful generation of innovative videos.

SKILLS

- **Frameworks:**HTML/CSS; React, TypeScript, Angular, Vue.js; Spring Boot, Express.js, Django, Flask; REST API
- **Tools:**Docker, Kubernetes; AWS; Git; PostgreSQL, DynamoDB, Redis; Figma; Postman; Hadoop, Spark, Kafka, Hive