

# Hao Yang

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## EDUCATION

University of Southern California, M.S. Data Science

Dec 2022

Case Western Reserve University, B.S. Computer Science

June 2020

## TECHNICAL SKILLS

- Python | Java | C++ | JavaScript | TypeScript | MySQL | Shell | Yaml | JSON
- Node | Express | React | Angular | Vue | Next.js | jQuery | Git | Django | Flask | Docker | Postman | Terraform | AWS | S3 | GCP | Pytorch
- English, Chinese(Mandarin, Cantonese), Japanese - All professional proficiency or above

## WORKING EXPERIENCE

DrLambda(ChatSlide AI)

Remote

Full-stack Engineer

Oct 2023 - current

- Designed and implemented key microservices of the application using **Python, Flask**, and **AWS EC2**, enhancing user experience. Led to a **54% rise in site traffic and 32% increase in revenue** in the first quarter.
- Designed and constructed the robust frontend for the WebUI using **AWS Amplify, React, JavaScript, TypeScript**, and **Next.js**, optimizing application performance through code refactoring. Achieved **28% increase in speed**.
- Integrated **LangChain** with **search engine wrappers** to dynamically scrape data based on user input and return accurate responses, leveraging **natural language processing** to provide relevant and timely information.
- Leveraged **PostgreSQL** and **AWS S3** for robust data storage solutions, optimizing database performance and ensuring reliable data retrieval for various application needs. Set up **Retool** to streamline database management and querying.
- Developed **RESTful API** endpoints to facilitate Create, Read, Update, and Delete (**CRUD**) operations with PostgreSQL. Employed **Postman** for API testing, ensuring the reliability and functionality of API endpoints. Utilized **API Gateway** to manage API endpoints and integrate with backend services.
- Wrote **shell scripts** in **Linux** to automate deployment processes, ensuring consistency and reliability across all deployment stages.
- Implemented **AWS CodePipeline** for continuous integration and deployment, automating testing, building, and deployment of code changes.
- Worked collaboratively across departments, including the AI team, UI/UX team, and PM team, to ensure the successful delivery of impactful solutions and products. Utilized **Jira** for task management and **Figma** for design collaboration.
- **Key Skills: Python, Flask, LangChain, SQL, EC2, S3, Amplify, React, JavaScript, TypeScript, Next.js**

Baynovation

San Jose, CA

Software Engineer Intern

Dec 2022 - Oct 2023

- Designed and developed a robust full-stack search engine utilizing Python **Flask** and **AWS**, catering to keyword search requirements within a dataset.
- Implemented **RESTful API** endpoints to facilitate Create, Read, Update, and Delete (**CRUD**) operations against **MySQL**, ensuring efficient data management.
- Engineered a reverse indexing mechanism within the **Flask** server to enhance search latency, enabling support for multiple keywords and common phrases.
- Conducted extensive testing using **Postman** to validate the functionality and performance of API endpoints.
- **Key Skills: Python, Flask, MySQL, S3, GitHub, Postman**

YAMI

Brea, CA

Data Engineer Intern

June 2022 - Sep 2022

- Train and fine-tune machine learning models to accurately predict the optimal size of shipping boxes for Yamibuy products. By leveraging machine learning techniques, successfully **improved prediction accuracy from 42% to 68%**. This enhancement in prediction accuracy led to a significant **reduction in labor and material costs, estimated at approximately 12%**.
- Implemented an ML system and modeling approach to address the packing problem, focusing on optimizing packing efficiency and reducing waste through the redefinition of prediction classes and fine-tuning of the model.
- Designed and built an **Extract, Transform, Load (ETL)** pipeline for logging customer and transaction data. This pipeline facilitated the efficient processing of critical business data, enabling data-driven decision-making and enhancing overall operational insights.
- **Key Skills: Python, MySQL, Pandas, Numpy, Sklearn, Pytorch, React, JavaScript, TypeScript, GitHub, d3.js**