

Haitian Hao

hhao08.com | hait.hhao@gmail.com

EXPERIENCE

Software Engineer | Baanyan Software Services

08/2023 – Present

- Spearhead the development of resilient **.NET** and **Spring Boot** applications, optimizing them for **Azure** cloud deployment, which improved system efficiency and scalability.
- Champion **automated testing** practices, integrating unit tests and test-driven development into the **CI/CD pipeline**, which improved code quality by 30% and reduced regression bugs by 45%.
- Developed responsive UIs with **Angular** and **React**, integrating **TypeScript** for enhanced functionality; deployed robust **RESTful APIs** to optimize data flow.

Cofounder, Software Engineer | VpickU Inc

01/2023 - 08/2023

- Co-founded a tech startup that supported over 100 students in their transition to a new academic environment.
- Spearheaded the development of a responsive, user-friendly **front-end interface** using **React.js**, **HTML5**, **CSS3**, and **JavaScript**, enhancing user engagement and satisfaction.
- Architected and deployed robust **RESTful APIs** with the **Django REST** framework, optimizing the efficiency of business operations such as order processing and payment transactions, which cut down operational costs by 15%.
- Initiated and integrated a continuous integration/continuous deployment (**CI/CD**) pipeline using Git, which enabled faster iterations and a more reliable release process.

Software Engineer Intern | Amazon.com, Inc.

05/2022 - 08/2022

- Collaborated with senior developers to implement scalable software systems in a fast-paced, dynamic work environment.
- Deployed and managed a customer-facing application using **AWS** services (**EC2**, **S3**, **DynamoDB**, **Lambda**), ensuring robust performance and real-time monitoring through **CloudWatch**.
- Optimized **SQL queries** for **DynamoDB**, improving data retrieval performance by 20% for key consumer features.
- Orchestrated the migration of batch processing jobs to a **serverless** architecture, significantly reducing operational costs and improving efficiency by 25%.

PROJECT

Full Stack Development Project - Responsive Web Application for Freelancers

Created a full-stack web app to connect freelancers with clients, incorporating real-time communication and payment features

- Engineered a responsive front-end using **React.js** and **Redux**, delivering a seamless cross-platform user experience.
- Constructed a **Node.js** backend with **Express**, providing robust API's for user interactions and content management.
- Integrated **Stripe API** for secure, efficient payment processing, fostering trust and reliability among platform users.
- Employed **Docker** for containerization and **Kubernetes** for orchestration to deploy the application in a scalable cloud environment, ensuring high availability and load balancing.

Data-Driven CI/CD Pipeline and Cloud Integration Platform

Developed intelligent CI/CD pipelines leveraging data analytics and machine learning to optimize build and deployment processes.

- Engineered a sophisticated CI/CD pipeline using **Jenkins** and **Azure DevOps**, incorporating machine learning algorithms to predict and prevent potential deployment failures, reducing downtime by 45%.
- Orchestrated the pipeline's data collection processes, capturing and analyzing build metrics to continuously refine and expedite build times through intelligent automation.
- Utilized **Azure Machine Learning** services to analyze historical operational data, enhancing the prediction of system load and optimizing resource allocation for deployment tasks.

API Development & Microservices Integration for FinTech Payment Platform

- Engineered a suite of secure, high-performance APIs for a financial services platform, utilizing **REST** and **GraphQL** to streamline client-server interactions and data exchange in **JSON** and **XML**.
- Pioneered the platform's shift to a **microservices**-based architecture, enhancing scalability and agility while implementing **Kafka** to facilitate robust, event-driven processes.
- Developed and supervised the execution of data pipelines and stream processing systems, significantly improving the transaction processing speed and real-time analytics capabilities, instrumental for real-time fraud detection features.

EDUCATION

New York University

Manhattan, NY

M.S. in Computer Engineering

Teaching Assistant, Dean's Honor List | Real-Time Embedded Systems, Advanced Machine Learning, Database Systems

University of Maryland

College Park, MD

B.S. in Computer Science, B.S. in Mathematics

Dean's Honor List | Algorithms Analysis, Software Engineering, Advanced Data Structure, Deep Learning, Applied Linear Algebra

SKILLS

Programming: Proficient in Java, Python, C; familiar with Kotlin, Swift, and OCaml.

Web Development: Advanced experience with Spring Boot, React, Django; working knowledge of Node.js with Express.

Cloud Computing: Skilled in deploying and managing applications on Microsoft Azure; proficient with AWS services (EC2, S3, RDS, Lambda); understanding of IaaS, PaaS, SaaS models.

Data Management & Analysis: Competent in data manipulation with SQL, MongoDB; data visualization with Matplotlib, Seaborn; machine learning with Scikit-Learn, TensorFlow, PyTorch.