Haitian Hao

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EXPERIENCE

Software Development Engineer Intern

Amazon.com

📅 05/2022 - 08/2022   📍 Arlington, VA

Java(Spring)/Go/MySQL/NodeJS/AWS/Kubernetes

- Attained the SDE internship offer in the Consumer team under manager Andy Van Zeeland.
- Collaborated with senior developers to implement **scalable** software systems, demonstrating communication skill in a **fast-paced**, **dynamic work environment**.
- Built an internal tool that analyze consumers' behavior by **visualizing** and **debugging metric queries**, crucial to landing new customers.
- Deployed applications using **Elastic Beanstalk** and **AWS CICD** with full **automation**. Maintained, monitored microservices using **CloudWatch** on AWS.

Software Engineer

VPICKU INC

📅 2022 - 2023   📍 Toronto, ON

Python/JavaScript/React/Django/MySQL/HTML/CSS/Git

- Cofounded a startup company that helped **100+** new international students to settle and adapt to challenges in the new environment.
- Utilized **React.js**, **HTML5**, **CSS**, and **JavaScript** to build a responsive and user-friendly front-end interface.
- Designed and implemented **RESTful APIs** using **Django REST** framework to handle various business operations - order placement, payment processing.

Software Engineer

MicroShield Technology

C++/Java/JavaScript/SQL

- Collaborated with interns and junior developers in an inclusive team-based environment, created **2000+** lines of scalable code.
- Deployed and maintained software solutions to real-world clients' demands. Extensively worked with JavaWeb frameworks - **Spring**, **SpringBoot**, Maven.

PROJECTS

Distributed Web Crawler

Python(Scrapy)/RabbitMQ/Nginx/MongoDB

- Achieved web crawling in **parallel** across multiple machines, focusing on **load balancing**, distributed task scheduling, and efficient **data storage and retrieval**.
- Designed and implemented load balancing techniques to distribute tasks, utilized **Nginx** as a reverse proxy and load balancer for improved performance.
- Successfully applied the web crawler for various purposes, extracting data from **10+** e-commerce websites for market research, aggregating content and gathering news of **100+** companies for stock investments.
- Reduced data acquisition costs by **30%** by automation, achieved faster results with existing resources, increasing productivity and efficiency.

Virtual E-commerce store

JavaScript(React)/NodeJS/SQL/AWS

- Designed and built an E-commerce store with inclusive functionality and user **information security management**.
- Implemented payment integration with PayPal **API integration** to enable smooth and secure online transactions, resulting in a **60%** increase in conversion rate.
- Deployed the project to Amazon S3, learned and leveraged **Amazon RDS** database for customer and merchandise data.
- Maintained and simulated real-world applications, successfully handling **1000+** active users and **50+** transactions per day.

Online Task Manager Web Application

Java/JavaScript(Angular)/SQL/MongoDB

- Established and deployed a web app to manage to-do tasks allowing online adding/editing/searching/customizing operations.
- Utilized self-built **RESTful API** with Node.js to handle HTTP requests and responses.
- Leveraged **MongoDB** to store and manage **cross-platform data** and records of tasks within the scale of **10,000**.

EDUCATION

M.S. in Computer Engineering

New York University

📅 2021 - 2023   📍 New York, NY

- Teaching Assistant | Real-Time Embedded Systems, Principles of Database Systems, Advanced Machine Learning

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

University of Maryland, College Park

📅 2017 - 2021   📍 College Park, MD

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

SKILLS & CERTIFICATIONS

- Language: Go, C++, TypeScript, Java, JavaScript, Kotlin, Python, Ocaml, Ruby
- Frameworks: React, Node.js, Express.js, Django, Spring, Kafka, Linux, PyTorch
- Industries: Web Development, Project Management, Software Troubleshooting, DevOps/Infrastructure, Automation/Scripting, Machine Learning/AI, Database Design

Certificates: Deep Learning Specialization | Machine Learning Structuring and Strategies