

# Haitian Hao

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🌐 <https://hhao08.com>

## 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**

- Co-founded 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](#)

📅 05/2021 - 08/2021 📍 Beijing, China

**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](#)