

MOHAMMAD JAMAL

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EDUCATION

Columbia University, Bachelors of Computer Science

Sept 2020 - December 2024

Relevant Coursework: Data Structures, Advanced Programming, Malware Analysis and Reverse Engineering, Computer Networks, Databases, Security

SKILLS

Programming Languages: Java, C, Python, HTML/CSS, JavaScript

Database Technologies: SQL, MongoDB

Tools & Frameworks: Node.js, React, AWS EC2, Sentry, Stripe API

Interpersonal Skills: Effective Communication, Time Management, Team Collaboration

EXPERIENCE

Software Engineering and Data Science Intern

Jan 2023 - March 2023

Shoptaki

New York, NY

- Implemented back-end APIs for an ArangoDB NoSQL database, improving data query efficiency by 30%
- Deployed and managed Node.js and ArangoDB backend servers on Amazon EC2, ensuring 99.9% uptime
- Developed an AI for load balancing network traffic, reducing latency by 32%
- Designed an AI to convert natural language into SQL queries, enabling broader applications for universities and government research
- Built and tested a hybrid centralized/decentralized network for AI load balancing, enhancing scalability

Backend Engineering Intern

June 2023 - August 2023

Smarttwigs

New York, NY

- Collaborated on the Benev (Social Media/Awareness Web & Mobile App) Team to design modular, reusable React components for scalable UI
- Integrated and leveraged Sentry Analytics to monitor and resolve performance issues, reducing crashes by 20%
- Implemented Stripe API for seamless payment/donation services, enabling \$50K in monthly transactions
- Designed and deployed a robust commenting service with over 1000 daily users

PROJECTS

Social Media API

Spring 2022

- Programmed in C using Sockets API, I/O, Memory Management, File Handling for Advanced Programming
- Built a dynamic server that accepted requests to search a database and sent results to a webpage
- Designed a client-server communication system using TCP for reliable data transmission

Linux Kernel Development

Spring 2022

- Programmed in C, utilizing process control syscalls to enhance kernel functionality
- Edited Linux Kernel in a virtual machine and implemented syscall to retrieve process parent and child information

AWARDS

Columbia University Named Scholarship

2020-2024

- Awarded \$80,000