

SATWIK MISRA

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EDUCATION

Northeastern University, Boston, MA

Expected May 2024

Candidate for Bachelor of Science in Computer Science

GPA: 3.75/4.00

Awards/ECs: Dean's List, University Honors Program, TA for Co-op Professional Development, Bessemer Fellow Finalist

Relevant Courses: Algorithms and Data Structures, Artificial Intelligence, Object Oriented Design, Machine Learning

EXPERIENCE

Software Engineer Intern

June 2023 - September 2023

MathWorks

Natick, MA

- Engineered an end-to-end debugger for Simulink Code Inspector with code syntax, highlighting, and differential tools, enabling engineers to navigate complex Intermediate Representation (IR) output files
- Reduced IR file size by 40% and cut generation time by 3 minutes by leveraging C++ to reformat dense files into **HTML**, thereby enhancing output efficiency and improving file readability
- Constructed a **JavaScript** and **MATLAB**-based UI to format and organize hundreds of output files by Simulink model type, addressing a vital need for QA teams
- Collaborated with cross-functional teams and led a design process over software development lifecycle stages

Software Engineer Co-op

January 2023 - June 2023

Fidelity Investments

Boston, MA

- Led the creation and testing of RESTful APIs through **Java**, **Spring** and **Mockito**, scaling capacity to support a tenfold increase in transaction volume for Fidelity Crypto's rapidly growing customer base
- Upgraded legacy software by migrating **SQL** queries to **Java** and deprecating SOAP APIs, achieving a 200% improvement in system response times while creating a more standardized and scalable backend
- Earned a company award for exceptional code quality and teamwork by leading four major API development projects and facilitating code review sessions
- Streamlined CI/CD pipelines through dependency management and refactoring, decreasing Sonar issues by 30%

Full Stack Developer Co-op

January 2022 - June 2022

Entrust

Concord, MA

- Unblocked over \$80,000 in TLS/SSL certificate sales and enhanced system robustness by resolving 13+ critical bugs with comprehensive testing and development using **Java** and **Spring Boot**
- Spearheaded the development of a price book export feature in **Java** and **JavaScript**, enabling corporate customers to customize and download pricing data while saving hundreds of labor hours in data aggregation
- Modernized the Partner Portal UI and created a new signup flow, generating 3,000+ daily user impressions
- Organized and participated in weekly Agile meetings with PMs, engineers, and other stakeholders to gather feedback and iterate on feature prototypes, reducing development timelines by up to two weeks

PROJECTS

Covey.town Data Persistence | TypeScript, PostgreSQL, React.js

February 2024 - Present

- Integrated friends list management and session tracking to an open-source web app using **Postgres** and **TypeScript**
- Coordinated weekly retrospectives with a team of 3 to discuss technical challenges and improvements

Financial Education Discord Bot | Node.js, MongoDB

December 2023 - January 2024

- Developed a quiz bot to teach financial concepts with a points-based reward system, used by 20+ students
- Created using **Node.js** and the Discord API while using a MongoDB database for the coin reward system

Image Processor | Java

May 2021 - June 2021

- Composed an image processing application with 8 transform options using **Java** and a Swing GUI
- Employed Test-Driven Development with JUnit and utilized Visitor and Decorator patterns to build an MVC

TECHNICAL SKILLS

Languages: Java, TypeScript, JavaScript, Python, HTML, CSS, SQL, C++, MATLAB

Frameworks: Spring Boot, REST, AWS, JUnit, Jest, React.js, Node.js

Developer Tools: Git, Bash, Postman, VS Code, Jenkins, Docker, Linux/Unix, Virtual Machines