RICHARD SAWH

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Education

Rochester Institute of Technology, Rochester, NY

B.S in Software Engineering with an Immersion in Economics   Expected Graduation May 2025

Experience

Complete Discovery Source, Software Engineer Intern, NY   June 2024 - August 2024
- Designed and implemented a database in PostgreSQL to securely handle sensitive client data.
- Enhanced data management practices, ensuring high availability and consistency of sensitive client data across various use cases.
- Optimized database queries, improving performance and cutting query execution time by 40%.

Jasaim, Software Engineer Intern, NY   January 2024 – April 2024
- Built a blockchain-based solution using Solidity to verify diplomas and credentials directly from the source.
- Integrated Binance APIs to create a tokenized credential authentication system.
- Developed business strategies and financial models, driving a 15% increase in profitability.

RIT Research (CISA), Software Engineering Intern**,** NY   May 2023 – August 2023
- Built a system in Python and Java to scrape, classify, and rank security vulnerabilities using AI-based text classifiers and language models.
- Assigned severity scores and proposed actionable fixes to enhance system security.
- Reduced project runtime by ~30%, cutting processing time from 9 minutes to 6 minutes for >1000 vulnerabilities.

Projects

Fitness Tracking Mobile Application   December 2024 – Current
- Built a fitness tracking app using React Native and Supabase to monitor workouts, goals, and dietary habits.
- Added barcode scanning for nutrition tracking and a GPT-powered chatbot for personalized advice.
- Enabled smartwatch syncing, real-time calorie tracking, and push notifications.
- Implemented user authentication, profile management, and AdMob monetization.

RIT SWEN-261 Project (Recipe Purchasing Site)   September 2022 – December 2022
- Developed a website for users to purchase recipes and have ingredients delivered through a service like Uber Eats.
- Integrated Google Maps API for real-time order tracking and PayPal API for secure payment processing.

MIT Think Competition (Semi-Finalist)   January 2019 – November 2019
- Designed a prototype of glasses using a Raspberry Pi, cameras, and sensors to perform Optical Character Recognition (OCR).
- Converted identified text into audio via text-to-speech for accessibility.
- Achieved Semi-Finalist status (Top 12) in the MIT Think competition.

Skills

- **Programming Languages**: Python, Java, MySQL, PostgreSQL, NoSQL, HTML, CSS, JavaScript, React, Angular, Dart, Go, C++, Solidity
- **Front-End Frameworks/Libraries**: React, Angular, Flutter, Bootstrap
- **APIs**: RESTful APIs, PayPal API, Google Cloud Asset API, Google Maps API/SDK, Yahoo Finance API
- **Tools and Platforms:** Postman, AWS, Firebase, Apache Tomcat, Arduino, Trello, Jira, Git

Involvement

High School FTC Team Mentor, Academies @ Englewood   December 2024 – Present
- Guided a student team to develop and program a competition robot, earning first place in one event.
- Focused on Java programming with 95% of development in object-oriented Java and 5% using Vuforia.