# 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  $\sim 30\%$ , cutting processing time from 9 minutes to 6 minutes for > 1000 vulnerabilities.

## **Projects**

### Honeywell - Confidential Project

September 2024 – May 2025

- Replaced a third-party solution with a custom Angular app using Foblex, Tailwind CSS, and Prisma for better integration
  with enterprise systems.
- Built reusable Angular components for scalability and maintainability.
- Used Figma and UML to design, prototype, and communicate system features and architecture.

### Fitness Tracking Mobile Application

December 2024 - Current

- Working on 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.

### Face/Object Recognition Utility

February 2025 – March 2025

- Developed a Flask-based web application for real-time face analysis and object detection using YOLOv3 and DeepFace.
- Implemented an interactive UI with drag-and-drop image uploads, real-time processing feedback, and visualized detection results.

#### 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.
- Converted identified text into audio via text-to-speech for accessibility.
- Achieved Semi-Finalist status (Top 12) in the MIT Think competition.

### Skills

- Cloud & Infrastructure: Google Cloud Platform, AWS, Supabase, Firebase
- **DevOps & Automation:** Terraform, Git, Postman, Apache Tomcat
- Programming Languages: Python, Java, MySQL, PostgreSQL, NoSQL, HTML, CSS, JavaScript, 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: Arduino, Trello, Jira, Git