

# JAIRIK 'JJ' McCUALEY

Full-Stack Software Engineer | Honors CS & Data Science Student

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## Education

### Salisbury University

Bachelors of Science in Computer Science and Data Science, Minor in Mathematics, 3.8 GPA Aug. 2022 - May 2026

- **Awards/Honors/Leadership:** Upsilon Pi Epsilon President, Pi Mu Epsilon Inductee, Chi Alpha Sigma Inductee, Computer Science, Math, & Data Science Club President, CSC Academic All-District Team

## Experience

### Booz Allen

Summer Games Intern - Full-Stack Software Engineer

Annapolis Junction, MD

Jun. 2025 - Aug. 2025

- Collaborated with two teammates to deliver a first-to-market, real-time cyber-physical analytics dashboard for a federal client, ingesting, processing, and visualizing live network activity from multiple ZeroTier-connected systems via an Elastic Stack pipeline; filtered over 99.9% of irrelevant incoming traffic to enhance non-technical clarity and drastically reduce analyst review time
- Built a responsive React interface with D3-driven visualizations, simplifying data traffic with intuitive animations
- Implemented a data delivery layer by streaming real-time events via WebSockets and deployed optimized Express REST APIs backed by Redis, enabling rapid configuration and millisecond-level retrieval of live and historical data
- Prepared the application for production deployment by implementing Nginx reverse proxy for secure request handling, systemd service management for persistent uptime, and custom deployment scripts for cross-platform configuration
- Presented the dashboard to a senior military general, receiving enthusiastic approval for performance and usability, securing support for near-term market release

### Salisbury University

Salisbury, MD

Computer Science Department Tutor & Lab Assistant

Aug. 2024 - Present

- Provided conceptual and technical guidance to all levels of Salisbury University's Computer Science Department, covering a broad range of topics such as Software Engineering principles, Artificial Intelligence techniques, and Cybersecurity fundamentals, adapting explanations to each student's course level and learning style
- Specialized in assisting students from introductory to advanced systems programming courses, including IPC, signals, threading, and data structures

### Resident Assistant

Aug. 2023 - May 2025

- Mentored 300+ diverse residents, fostering an inclusive community and earning SU's Best Community Builder award
- Led 10+ programs and ensured safety through incident response and coordination with staff and law enforcement

## Personal Projects

### Lunara - [github.com/Jairik/RUHealthHack-25](https://github.com/Jairik/RUHealthHack-25)

October 2025

- Won best overall women's health hack at Rutgers Healthhack 2025; currently being presented at a healthcare innovation conference for market-ready deployment
- Developed an AI triage system that enables call center agents to route patients to the correct specialist in under 30 seconds using NLP-driven models trained on anonymized hospital transcripts, achieving 93% accuracy
- Built a full-stack solution with a React.js frontend, FastAPI backend, and AWS Aurora Serverless database, integrating real-time confidence scoring, dynamic clarifying questions, and HIPAA-compliant audit logging across 140+ tracked conditions

### Testif.AI - [github.com/SpencerPresley/UMBC-2024-Hackathon](https://github.com/SpencerPresley/UMBC-2024-Hackathon)

September 2024

- Won best educational hack at the 2024 UMBC Hackathon with *Testif.AI*, a full-stack web application that leverages LLMs to automatically generate quizzes and tests from user-provided study materials
- Developed a robust FastAPI-based backend with LangChain, Python, and the OpenAI API, exposing RESTful endpoints to process user inputs and deliver generated assessments through a responsive HTML/CSS/JS frontend

### Android Fitness App - [github.com/Jairik/MOVE4WELLNESS-Android-App](https://github.com/Jairik/MOVE4WELLNESS-Android-App)

May 2024

- Built a fitness app prototype for Salisbury University's 'Move4Wellness' initiative, focusing on student wellness and digital engagement in collaboration with a peer developer
- Designed and implemented the authentication system, GUI, and NoSQL database with Java and Firebase Cloud

### Stock Portfolio Management System - [github.com/Jairik/Stock-Portfolio-Management](https://github.com/Jairik/Stock-Portfolio-Management)

May 2025

- Developed a web-based Stock Portfolio Management app for investors to track holdings and manage transactions
- Built core system architecture using PHP and MySQL, integrated real-time financial data from external APIs, implemented role-based access, and visualized analytics via Chart.js and an interactive AJAX frontend

**Other Notable Projects:** Encrypted Chatroom | AI Puzzle Game | Algorithm Performance Benchmarks  
University Metrics & Analytics App | Portfolio Website | Chick Detection & Counting w/ Perdue Farms

## Technical Skills

**Languages:** Python, JavaScript/TypeScript, C/C++, Java, SQL, Bash, PHP, R, HTML & CSS

**Frameworks:** React, Express, FastAPI, Tailwind, Bootstrap, D3.js

**Databases:** MySQL, Redis, Firebase Cloud Firestore, Neo4J AuraDB

**Tools:** Git/GitHub, Linux, Agile/Scrum, Vite, Swagger UI, LaTeX, Virtual Machines, Wordpress

**Cloud/Other:** Firebase, OpenAI API, TensorFlow, Elastic Stack (ELK), WebSockets