Ryan Rana
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Education

Rutgers University — New Brunswick, NJ
Bachelors in Computer Science — *Aug. 2024 – May. 2028*

Member/ Former Member of: USACS(current), Alpha Sigma Phi (national alumni member), RUMAD, Blueprint

Experience

Centren Health — Nov 2025 - Present
Software Engineer — *New Brunswick, NJ*
clinical transformers, pkpd modeling, large scale data.

Mesh — May 2025 - Oct 2025
CTO — *Remote*
Led development. Beta reached 300 users. Wound down after testing real-world usage pattern.

Goldman Sachs — Jan 2025 - Jun 2025
Possibilities Summit Participant — *Remote*
$\tilde{1}$5% acceptance rate out of 8000 applicants.

Stem In Place — Aug 2021 - Aug 2024
President — *Martinsville, NJ*
Started as summer instructor, became vp, then president. That year we took signups from 600 to 1500 signups and 20 to 40 instructions.

Showcased Projects

Osler: 3rd Place at RuHealthHack - AI-powered mobile application for hospitalist onboarding efficiency. Built with Flask backend and RAG system using Google Gemini for intelligent information retrieval. Features include real-time hospital guidelines access, staff scheduling integration, supply location mapping, and administrative tools for notifications and KPI analysis. Implemented vector embeddings for semantic search and automated content summarization.
Aura: Enterprise AI analytics platform for retail management with conversational intelligence. Features multi-step business investigation capabilities through Snowflake data warehouse integration, real-time analytics dashboard, and natural language query processing. Implemented advanced SQL optimization, automated report generation, and predictive analytics for inventory and sales forecasting.
Helios: AI-powered haptic navigation device integrating computer vision and natural language processing for object detection and spatial guidance. Developed embedded system using Python, OpenCV for real-time object recognition, NLP for voice command processing, and haptic feedback algorithms. Features proximity sensors and machine learning models for mixed-object detection within close-range environments.

Technical Skills

Languages: Python, JavaScript, React, HTML, PHP, SQL, Java, Bash, Swift, Latex
Developer Tools: AWS, Node.js, Conda, Framer, Figma, JQuery, XAMPP, OpenCV, MondoDB, MYSQL, Firebase, VIM, Raspberry Pi, Arduino, GIT, CocoaPods, Scikit, Numpy, Pandas, Kaggle, Google Cloud, Bootstap, Docker, Jira, NPM, Linux, Matplotlib