

Sumedha Saravanakumar

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EDUCATION

Purdue University <i>Bachelor of Science in Computer Engineering, Concentration in AI & Machine Learning</i> • Cumulative GPA: 4.0 • Relevant Coursework: Intro to C Programming, Advanced C Programming, Python for Data Science, Data Structures • Semester Honors & Dean's List (Fall 2024, Spring 2025) • Qualcomm Inclusion Scholarship recipient	West Lafayette, IN August 2024 – May 2028
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EXPERIENCE

Software Engineering Intern <i>Yottasecure, Inc.</i> • Contributed to full-stack development of scalable web applications using Java, Python, and React • Supported AI-driven cybersecurity projects focused on vulnerability detection and system hardening • Configured and maintained AWS EC2 instances for application deployment and testing • Participated in penetration testing and quality assurance to identify and resolve security flaws	May 2025 – August 2025 Santa Clara, CA
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PROJECTS

Social Stock Exchange Real-Time News Feed Feature • Developing a news feed in the SSE mobile app for real-time celebrity updates and trending content • Implementing personalized feeds, keyword search, and interactive features (upvotes, comments) to improve user engagement • Building news ingestion pipelines using scrapers and APIs with Supabase (Postgres + storage) for persistence and caching • Optimizing backend services with Node.js (Express) to support real-time updates and social tagging	September 2025 – Present
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RESEARCH & CLUBS

Development and Operations Team Member <i>Autonomous Robotics Club of Purdue</i> • Building and maintaining the ARC website to support student activities and campus engagement • Contributing to software engineering projects focused on developer tool platforms and campus software solutions • Developing web applications using React, JavaScript, Python Flask, Firebase, and FastAPI	September 2025 – Present
AI & Computer Vision Researcher <i>Video Analytics for Daily Living Lab</i> • Implementing Python computer vision models to classify/track cows from large-scale image and video datasets • Developing preprocessing and feature extraction pipelines to improve model accuracy in real-world conditions • Applying machine learning techniques for object detection and behavioral pattern recognition in agricultural applications	August 2025 – Present
Software Team Member <i>Boiler Robotics</i> • Developing and testing computer vision algorithms to analyze images of geological samples to detect photosynthetic material • Programming a robotic arm with ROS to perform precise manipulation tasks like inserting USB devices and flipping switches • Implementing semi-autonomous navigation with computer vision, sensor fusion, and real-time data processing • Collaborating with cross-disciplinary teams (mechanical, electrical, biological) to ensure seamless integration of software with existing hardware systems, including motor controllers, sensors, and power systems	August 2025 – Present
Undergraduate Data Science Researcher <i>The Data Mine</i> • Utilized Python and R for data cleaning, transformation, and analysis across diverse real-world datasets • Created interactive visualizations using tools such as matplotlib, and plotly to communicate key insights • Applied statistical methods and data wrangling techniques to support research-driven decision making	August 2024 – May 2025

TECHNICAL SKILLS

Languages: Java, Python, C, JavaScript, TypeScript, HTML, CSS, MATLAB, R, SQL
Frameworks & Platforms: React, Node.js (Express), Flask, FastAPI, Bootstrap
Databases & Cloud: Supabase (Postgres + storage), Firebase, AWS (EC2, RDS), Docker
Developer Tools: Git, Linux, Visual Studio Code, PyCharm, Eclipse
Libraries: NumPy, pandas, Matplotlib, Plotly, scikit-learn, OpenCV