

Sumedha Saravanakumar

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EDUCATION

Purdue University

Bachelor of Science in Computer Engineering, Concentration in AI & Machine Learning

West Lafayette, IN

August 2024 – May 2028

- 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)
- Involvement: Purdue Stack, Boiler Robotics, Autonomous Robotics Club (ARC), Purdue Momentum, Vertically Integrated Projects (VIP), The Data Mine

EXPERIENCE

Frontend and Backend Software Engineer

West Lafayette, IN

November 2025 – Present

Purdue ECE Corporate Partnerships Program

- Contributing to full-stack development of web platforms supporting ECE industry partnerships and student engagement
- Building scalable backend services and intuitive frontend interfaces using React, JavaScript, Node.js/Express, and REST API
- Collaborating with stakeholders to gather requirements, propose technical solutions, and iteratively refine product features

Software Engineering Intern

Santa Clara, CA

May 2025 – August 2025

Yottasecure, Inc.

- 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

PROJECTS

Social Stock Exchange Real-Time News Feed | *React Native, Expo, Node.js, Express, Supabase*

- Developed a news feed in the SSE mobile app for real-time celebrity updates and trending content
- Implemented personalized feeds, keyword search, and interactive features (upvotes, comments) to improve user engagement
- Built news ingestion pipelines using scrapers and APIs with Supabase (Postgres + storage) for persistence and caching

Purdue ECE Faculty Directory Web Application | *React, Axios, Framer Motion, CSS, Node.js, Express, Cheerio*

- Developed a React frontend and Node/Express backend with dynamic search by faculty name or research area
- Implemented search features supporting wildcard, partial, and root-word matching using regex and Porter stemming
- Built a web scraper to extract and store faculty information in a JSON cache to avoid redundant requests

CLUBS & LEADERSHIP

DevOps Engineer | *Autonomous Robotics Club*

September 2025 – Present

- 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

Hackathon Coordinator | *Purdue Momentum*

September 2025 – Present

- Planning Momentum's hackathon, including managing logistics, coordinating sponsors, and overseeing technical setup
- Gaining hands-on experience in project coordination, team leadership, and large-scale event execution

Software Engineer | *Boiler Robotics*

August 2025 – Present

- 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

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, OpenCVNumPy, pandas, Matplotlib, Plotly, scikit-learn, OpenCV