

Lakshay Mahajan

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EDUCATION

Purdue University | West Lafayette, IN

May 2027

B.S. in Computer Science, co-major in Mathematics, Minor in Finance

Relevant Courses: Discrete Mathematics, Python Programming, Object-Oriented Programming, Corporate Finance, Linear Algebra, Differential Equations, Data Analytics, Systems Programming

TECHNICAL SKILLS

Programming: C | C++ | Python | Java | SQL | HTML | CSS | JavaScript | R | Node.js | React.js

Tools & Technologies: REST APIs | MySQL | Postman | Figma | Linux | TensorFlow | GIT | AWS CloudWatch | Lambda | CrateDB | Grafana

Concepts: Data Structures & Algorithms | Computational Complexity | Linear Algebra | Machine Learning | Operating Systems (Threads, Process Control, Memory Management) | Networking Fundamentals | Cloud Computing

RELEVANT EXPERIENCE

Undergraduate Data Science Researcher | The Datamine | West Lafayette, IN

August 2024 - May 2025

- Built a chatbot for Caterpillar, enabling efficient diagnostics of network traffic.
- Applied **R**, **SQL**, and **Python** for analyzing high-velocity network data.
- Leveraged **CrateDB** for seamless data storage and retrieval and **Grafana** for dynamic visualizations.
- Engineered the chatbot to provide actionable insights, minimizing downtime and enhancing operations.

Software Intern | ProLegion -The World of IT Professionals | Houston, Texas

May 2023 - October 2023

- Styled UI/UX for the company's portal, increasing user satisfaction scores by **20%** through improved navigation, design consistency, and an intuitive user experience.
- Developed a responsive skeleton of the website's landing page using **HTML**, **CSS**, and **JavaScript**, improving cross-device compatibility and overall performance.
- Collaborated with the design team and stakeholders to align the portal's aesthetic with company branding for a cohesive and engaging user experience.

Summer Intern | Assure Health | Lauderdale Lakes, FL

May 2022 - September 2022

- Designed a patient scheduling system using **Node.js**, **React.js**, and **AWS**, optimizing appointment efficiency.
- Implemented a real-time error monitoring system with **AWS CloudWatch**, enhancing error tracking and resolution.
- Collaborated with a team of 5 to integrate patient data, ensuring 100% compliance with healthcare data regulations.

INITIATIVES / PROJECTS

HSE Apps Development | President | www.hseapps.org

August 2022 - 2024

- Led the development of four essential applications for Hamilton Southeastern High School, including a scheduling assistant, club management tool, schedule clock, and pass system, **utilized by 3500 users:** teachers and students.
- Utilized **Node.js** and **React.js** to build scalable applications and **MongoDB** for efficient data storage.
- Coordinated with school administration and stakeholders to ensure the applications met diverse user needs and improved overall functionality.

Founder of Roary's Shelter: Student Support | Passion Project | www.roaryscloset.com/

May 2023- 2024

- Founded a nonprofit to provide meals to **over 50 students monthly**, using a digital platform to streamline requests and **improve efficiency by 40%**.
- Integrated a **tech-driven inventory system** to reduce food waste while leading a team of 10 volunteers and increasing community donations.

Predicting March Madness Brackets with AI | Personal Project

March 2023

- Designed and developed a **machine learning model** to predict March Madness basketball tournament outcomes, incorporating **historical game data**, **player statistics**, and **team performance metrics**.
- Utilized advanced algorithms, including **neural networks** and **data preprocessing techniques**, to generate accurate bracket predictions with a **67% accuracy**.

GPT Image Reader | Personal Project

March 2023

- Developed a software application that integrates **OpenAI API** with an **image reader library** to analyze images.
- Implemented a system where images are converted into data, sent to the API for **natural language processing**, and used to **generate responses** that solve problems and provide insights.