

SPARSH NAIR

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EDUCATION

Indiana University Bloomington

Expected Graduation May 2025

BS Computer Science (AI and Systems Dual Specialization)

GPA 3.72

Minors in Math and Data Science

Spring 2023 Deans List

Bloomington, United States

Relevant Coursework: Intro to CS, Discrete Structures, Software Systems (Java), Calculus 1

SKILLS

Programming Languages

Java, Python, HTML/CSS, Racket

Technologies + Tools

Git, Docker, Postman, MongoDB, Vite, PostgreSQL

Frameworks + Libraries

NumPy, pandas, FURY, JUnit, Spring, VTK, React

Misc.

Fusion360, Illustrator, Photoshop, Figma, Excel

EXPERIENCE

Mercedes Benz Research and Development India

May 2023 - Present

Software Engineer Intern

Bangalore, India

- Built **Java** applications utilizing **Spring Boot**, **PostgreSQL**, **React** to address NVH (Noise, Vibration, and Harshness) challenges for the IT for Engineering team. Managed feature tracking using Jira.
- Developing comprehensive full stack application for engineering managers, emphasizing project organization, team utilization, KPI monitoring, and cost tracking. Utilized Postman for API endpoint testing.
- Translated wireframe designs into web app frontend, implementing backend functionality based on ER Diagram.

IU ServeIT Nonprofit Clinic

Jan. 2023 - May 2023

UX Design Intern

Bloomington, United States

- Follow AGILE methods by working in sprints to redesign a non profit (ALASI) website for user experience, presenting solutions to team and external stakeholders. A/B tested design solutions for effectiveness.
- Create wireframes and mockups in Figma, following design systems and style guides.

PROJECTS, COMPETITIONS & AWARDS

Free Unified Rendering in pYthon (FURY)

Python, NumPy, GLSL, VTK

Jan. 2023 - Present

- Contributing to FURY (Free Unified Rendering in pYthon), a open source rendering project as an undergraduate researcher, produced webpage tutorial for dual point arrow actor.
- Create new primitive actor, and added object wireframe, culling and opacity functions using **VTK** commands. Produced **pyTest** unit test for actors and utility functions. Currently implementing Voronoi shader using **GLSL**.

Cable Count Inventory System

Java, Spring Boot, MongoDB, React

Github

June 2023 (Ongoing)

- Developed full stack application for tracking cable inventory with dashboard, creating ER Diagram for NoSQL database.
- Used **React** with **ViteJS** for frontend, Postman for REST API testing, parsing **MongoDB** output to exportable csv file. Containerized application using Docker.

Morgan Stanley Code for Good Alpharetta

Github

Apr. 2023

- Collaborate in team of 6 in hackathon to create streamlined communication app and accompanying presentation for Make A Wish - Georgia, creating a chatbot API with web app backend.

Crossroads Classic Analytics Challenge

Third Place - Undergraduate Division

Github

Feb. 2023

EXTRACURRICULAR INVOLVEMENT & LEADERSHIP

IU Cybersecurity Club Vice President

May 2023 - Present

IU Cybersecurity Club Lab Developer

Jan. 2023 - May 2023

- Developing technical curriculum and literature for hands-on activities & lead said activities.
- Co-presented labs on Defense using SIEMs with Splunk and Debian VM, Docker and Cryptography

Director of Programming, Teter Student Government

Aug. 2022 - May 2023

- Responsible for coordinating programs and events at one of the IU Residence Halls.
- Led organization for three multicultural community events and socials for 1000 residents.