Shyam Sivasubramanian

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Education

Purdue University, *B.S. Computer Science and Data Science* 2023 – 2027
West Lafayette, IN

Skills

Programming Languages: Java, R, Python, C, C++, Assembly, SQL, GLSL, HTML, CSS, JavaScript
Tools & Libraries: Mediapipe, SciKit Learn, OpenCV, Pandas, Numpy, Virtual Reality, Plotnine, Statsmodels, Stable Baselines 3, Pytorch, Git, CLI, Linux, Robot Operating System, OpenGL,

Work Experience

Karyon.bio, *Data science Intern* 05/2025 – 08/2025
- Created **classification models** and **visualized data** using **Pandas**, **Plotnine**, and **statsmodels** and to aid in predicting the likliness of fatty liver disease and diabetes of a certain patient.

Purdue CoMMA Lab, *Researcher* 08/2024 – present
- Collaborated with **Prof. Zachary Kingston** to deploy scripts on **robot manipulators** to detect and avoid collisions in real time.
- Currently working on using **Virtual Reality (VR)** technology to control robot manipulators while integrated collision detection is active

Web Developer, *The Purdue Rivet* 02/2025 – present
- Currently using my skills **HTML, CSS,** and **JavaScript** to create a website for the Purdue Rivet, a student run publicaiton.

Staff Photographer, Graphics Artist, *The Purdue Exponent* 08/2023 – present
- Used my skills in photography and art to add context to news stories published on Purdue's student run newspaper

The Robotics Institute, Carnegie Mellon University, *Research Assistant* 06/2022 – 08/2022
- Developed test scripts for **reinforcement learning** research in robotics to assist a PhD candidate.
- Conducted robot simulations to validate and improve algorithm performance.

Biohaven Pharmaceuticals, *Intern* 06/2022 – 08/2022
- Analyzed clinical trial data for upcoming neurological drugs using the **R programming language**, ensuring accurate interpretation and reporting.

CodeNinjas, *Instructor* 02/2020 – 05/2023
- Taught kids concepts centered around STEM, engineering, computer science, programming, robotics, and animation while working with parents as a customer service representitave

Notable Projects

DeepRow
DeepRow is a Massachusetts Science + Engineering Fair (MSEF) entry that uses data from professional athletes to provide users with a score of how good their form on a rowing machine is. The project employed **computer vision** and **pose estimation** techniques using several **Python** libraries such as **Scikit Learn, Numpy, OpenCV, and MediaPipe**.

Minesweeper Auto Solver
This is a personal passion project that creates Minesweeper puzzles and attempts to solve them. Puzzles are solved using algorithmic thinking via a hierarchy of reasoning. The project employs **HTML/CSS** amd **JavaScript**

Shader Study
This Shader study was a personal passion project that I pursued to learn more about **computer graphics**, **multivariable calculus**, and **animation**. The project employed **GLSL** and **OpenGL** and was coded on Shadertoy- an online GLSL compiler.

Relevant Coursework

Discrete Math and Data Structures and Algorithms, *Purdue University* 08/2024 – 12/2024

Data Science and Statistics using R and Python, *Purdue University* 08/2024 – 12/2024

Linear Algebra and Calculus, *Purdue University* 01/2025 – 05/2025

C Programming, *Purdue University* 01/2024 – 05/2024

Computer Architecture, *Purdue University* 08/2024 – 12/2024