MANAS PARANJAPE

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EDUCATION

Purdue University**,** West Lafayette, IN — Aug 2021 - Dec 2024
Major: Computer Science, Mathematics (Honors)
GPA: **3.96 / 4.00**

TECHNICAL SKILLS

- Frontend: HTML, CSS, Bootstrap, Tailwind, JS/TS, React, Django, Unity, Unreal Engine, OpenMPI, FFMPEG
- Backend: Python, MATLAB, R, C, C++, Java, Springboot, MySQL, Spark, NodeJS
- Platforms: Git, Microsoft Fabric

WORK EXPERIENCE

The Donovan's Venom | Remote — July 2024 – Present
Software Engineering Intern
- Worked with design team and clients to understand needs for deployment.
- Created and deployed website using React, Tailwind, Material UI, and TSX with **over 99% match** to design specifications.

BridgeNext | Atlanta, GA — June 2024 – Aug 2024
Software Engineering Intern
- Designed efficient Spark pipelines in Microsoft fabric to transform over **5 million sales data points.**
- Built an Azure API to **extract relevant data** from pdf files and store in SQL tables with **over 92% accuracy.**

IDEAS Labs | West Lafayette, IN — Jan 2023 – May 2024
Undergraduate Research Assistant
- Achieved state-of-the-art deepfake detection with a model **3x smaller, reducing error by 27% and runtime by 75%** in PyTorch.
- Partnered with **Adobe** in developing and training a model to generate dances similar to professional dancers.
- Published and presented scientific papers about above topics to top AI journals. (e.g., AAAI, ACM MM)

Kihara Labs | West Lafayette, IN — Oct 2022 – May 2023
Undergraduate Research Assistant
- Tested machine learning model to predict missing protein sequences in larger structures in C++ and Python.
- Predicted protein sequences at 0-3Å resolution **with over 85% sequence match.**

Purdue University Math Department | West Lafayette, IN — Jan 2022 – Aug 2022
Undergraduate Research Assistant
- Improved accuracy of SIS model to forecast US elections using MATLAB to **95% for 2022 elections**.
- Increased user base **by 26%** by designing and deploying a website to display forecasts from Gitlab backend.

Purdue Computer Science Department | West Lafayette, IN — Jan 2023 – Present
Teaching Assistant (Analysis of algorithms)
- Teaching students algorithmic theory and managed class of size over **435 students**.

PROJECTS/EXTRACURRICULARS

Discussion Board (Code on personal Github above) — Aug 2021 – Dec 2021
- Worked with a team to develop a discussion board with a server-client design in Java, Swing, Sockets.
- Developed back end with **concurrency, multithreading**, **deleting** and **editing** messages, **polling** and **grading** with **security** to prevent basic injection hacks.
- Developed front end with messaging app style multichannel scrolling interface and GUI.

Shell (Code on personal Github above) — Jan 2023 – May 2023
- Implemented a low-level system in C++ which allows user to input commands like a linux shell.
- Implemented features allowing users to create and use multiple instances of the shell parallelly.

Autonomous Robotics Club (ARC) – Piano Hand — Aug 2021 – Jan 2023
Team Lead for Machine Learning and Simulation
- Led team to develop machine learning algorithm to recognize sheet music and used GitHub Projects for Management.
- Created software to simulate integration of hardware and software to test functionality and degrees of freedom.

ACHIEVEMENTS

- Won **ASA Datafest 2022** organized by Purdue Data Mine by deriving conclusions from clickstream data.
- Won **HPC Supercomputing Challenge 2022** by optimizing rendering of the universe utilizing ffmpeg, and OpenMPI.