Dhruv Sujatha

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Education

Purdue University ***West Lafayette, IN***
Bachelor's of Science - Computer Science ***Expected Graduation: May 2025***
Bachelor's of Science - Data Science ***GPA: 3.5***

Coursework: Object-Oriented Programming: CS180, Discrete Mathematics: CS182, C-Programming: CS240, Introduction to Data Science: CS242, Statistics for Data Science: STAT355

Planned (Spring 2023): Data Structures and Algorithms: CS251, Computer Architecture: CS250, Probability: STAT416

Proficient Languages: Python 3.x, C, Java, C++, R, SQL

Professional Experience

Rosen Center for Advance Computing (ITaP) ***West Lafayette, IN***
Student High Performance Computing Engineer ***January 2022 - Present***

- Responsible for the planning, inventorying, deployment, and maintenance of 9 supercomputing clusters on campus. Developed pipelines to automate cluster management tasks such as logging and monitoring.

Skills Developed: Python, Bash Scripting, NetBox, Redfish, xCAT, SLURM, Asana

Farfetch - The DataMine ***West Lafayette, IN***
Data Science Researcher ***August 2021 - May 2022***

- Worked with a team of students researchers via The DataMine Learning Community to store, analyze, and interpret fashion data to develop a Deep Neural Network model to predict size and fit. Gained valuable experience in the use of Agile Software Development methodologies and related tools such as Asana, Trello, and Jira.

Skills Developed: Python, Tensorflow, Sci-Kit Learn, Pandas, MySQL, Trello, Jira

Other Experience

Student Cluster Competition - SC 2022 ***November 2022 - Dallas, TX***

- Part of the SCC team representing Purdue University and Indiana University at the Supercomputing Conference 2022. Worked on the development of a mini supercomputing cluster capable of running scalable HPC applications such as PHASTA and LAMMPS. Optimized and compiled state of the art benchmarks such as HPL, HPCG, and MLPerf. Created a dynamic power management interface to monitor and control the power consumption of the cluster by underclocking and limiting the GPUs and CPUs.

Skills Developed: C++, Linux Kernel, Python, Bash Scripting, Spack, OpenMPI, CUDA, Git

Autonomous Robotics Club of Purdue ***January 2022 - West Lafayette, IN***
Server Admin Team

- Part of the Server Administrator Team responsible for the upkeep of the technical stack used by all the projects at ARC. Worked on deploying the infrastructure for the ARC website and the ARC Discord server using Docker.

Skills Developed: Python, Bash Scripting, Docsy, Hugo, Docker, ProxMox

Piano Hand Project - Software Team Lead

- Leading the software team to develop a serial API to control a biomechanical hand to play the piano. Using deep learning frameworks to train a model which can recognize music to dynamically control the hand.

Skills Developed: Arduino C, MicroPython, Mosquitto

Certifications and Awards

ASA Datafest 2022 ***American Statistical Association***

· Recognized by the American Statistical Association for my work in finding meaning from a large and complex data set to aid in data-driven decisions. ***March 2022***

AITP Computing Challenge Day 2022 ***Association of Information Technology Professionals***

· First in the *ITaP Super Computing Challenge* where we had to optimize rendering of a simulation of our universe utilizing ffmpeg, OpenMPI, and Intel MPI. ***April 2022***

· First in the *DataMine ML Challenge* where we had to derive the conditional probabilities of target features in a dataset and visualize it as a graph.