Aarohi Gupta

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Education

University of Illinois at Urbana-Champaign **Champaign, Illinois**
Bachelor of Science in Computer Science and Minor in Mathematics *Expected Graduation: December 2024*
Honours: Dean's list (Fall 2021, Spring 2022), James Scholar *Cumulative GPA: 4.0*

Relevant Coursework

Introduction to Data Structures and Algorithms with C++, Linear Algebra with Computational Applications, Prob. & Stat. for Computer Sci., Computer Architecture, Discrete Structures

Experience

CS 124: Introduction To Computer Science I **January 2022 - May 2022**
Course Assistant *University of Illinois at Urbana-Champaign*

- Recorded coding walk-through videos to explain topics regarding object oriented programming to 300+ students
- Assisted students on conceptual issues, coding problems and machine projects on the help site for the class for 4 hours a week
- Review course materials including quizzes, coding walk-throughs, and homework questions

Campk12 **May 2020 - July 2020**
Teaching Assistant *Gurugram, India*

- Co-developed lessons and assignments on python, machine language and image processing (using OpenCV).
- Implemented interactive methods of teaching and testing like idea pitch nights increasing student engagement by 45%.

Awidit Systems Pvt. Ltd. **June 2019 - July 2019**
Summer Intern *Gurugram, India*

- Worked within a team of 4 to create a computer vision project that distinguished people based on the colour of their clothes using a CCTV camera.
- Learnt and applied Tensorflow to understand a dent detection system for automobiles.

Projects and Organisations

Sentify: Spotify sentiment classification system | *Python, SpotifyAPI, Git* **January 2022 - Present**

- Optimized the process of data acquisition and cleaning from Spotify's API for 90k data points through automation
- Identified important features of the data for the ML model through data analysis and visualisation (making violin plots, histograms, etc) using Matplotlib, Seaborn and Pandas
- Devised an ML system for song sentiment classification (using KNN, XGBoost, Decision trees, CNN) to be used on Spotify's library of 70 million+ songs
- Creating an algorithm that uses the ML system to classify songs on the users profile and returns a playlist based on the users mood

BioSignals (SIGMusic) | *PurrData, C++* **January 2022 - April 2022**

- Conceptualised and implemented PurrData code for a randomised drum sequencer using noise gates, oscillators and envelope generators
- Collaborated with a team of 5 to create a PurrData deserializer to merge the drum and melody sequencers with the Arduino.

Sign Language learning system | *Python, Node.js, JS, HTML, CSS, Blender, Aframe, Git* **January 2021 - Present**

- Created an NLP based translator that converts English syntax to Indian sign language syntax
- Designed a 3D interface for the application using blender and a-frame
- Created a pitch and demo for the system to showcase to 25 investors at an idea fair and received positive feedback
- Currently working on a computer vision based correction system that corrects the users hand positions while signing

Technical Skills

Programming Languages: Python, Java, JavaScript, C++, Git, Markdown (HTML, CSS)
Technologies/Frameworks: Node.js, npm, ReactJS, OpenCV, NumPy, Pandas, TensorFlow, Bootstrap, TailwindCSS
Developer Tools: Visual Studio Code, Glitch, Heroku, Docker
Relevant Certifications: ApplyAI (AI4ALL); Web development, VR/3D development (Campk12); Intermediate Machine Learning, Introduction to SQL, Pandas (Kaggle)
Languages: English (Native proficiency), Hindi (Native proficiency) and French (Limited working proficiency)