Satvik Choulapally

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Education

Year	Degree	Institute/School, City	Grade
2021 – Current	B. Tech, Computer Science & Artificial Intelligence	Amrita Vishwa Vidyapeetham, Amritapuri	7.74 GPA
2021	Class XII, Telangana State Board	FIITJEE Junior College, Hyderabad	96.6%
2019	Class X, CBSE	D.A.V Public School, Hyderabad	95.8%

Experience

Research Intern @ AMMACHI Labs: **Oct 2023 – Jan 2024**

- Researched on the impact of diverse teaching methods on students' performance, and analysed various trends and differences between 'good' and 'bad' teaching practices.
- Applied knowledge of tools used for video, audio and language processing/analysis like Rokoko suite and python libraries such as librosa and Moviepy.

.NET Developer @ Traboda(Freelance): **Sep 2022 – Feb 2023**

- Contributed to the development of a small-scale full stack application written in C#.NET framework for the purposes of testing, analysing and preventing various methods of cybersecurity attacks like SQL and CSV injection.

Position of Responsibility

Head @ Amrita Esports Community **April 2023 – May 2024**

- Led a team of 15 people conducting non cultural events around the year, working with budgets over ₹3 Lakh
- Conducted and managed events for Vidyut, a multicultural

Team Lead @ Social Service Responsibility Project **April 2023 – May 2024**

- Led a team of 7 people mentoring young freshers to help them get used to the ever-changing industry and familiarizing them with all the options they have available.

Projects

Leaf Curl Virus Detection in Plants | Python/AI: **May 2024 - Current**

- Developed an android/ios app that identifies the leaf curl virus which is responsible for reducing the yield of almost 35% of all infected plants. Used cutting edge ML and image processing technologies to achieve a 96% accuracy in successfully detecting the virus.

Tetris AI using Deep Reinforcement Learning| Python/AI: **Dec 2023 – Feb 2024**

- Created an AI that can play Tetris using deep Q learning which, when trained for 8 hours, can play an almost perfect game of Tetris

CHIP8 Emulator | C++: **Dec 2023 – Feb 2024**

- Implemented a COSMAC VIP CHIP8 emulator in C++, and Simple Direct-Media Layer (SDL) as a stepping-stone to the CPU emulation field.

Neural Network Implementation | Python: **Aug 2023 – Sep 2023**

- Developed a custom neural network model in Python by applying mathematical algorithms and trained it to be a handwriting recognition model on the MNIST dataset.
- Achieved 93% accuracy on a few epochs without using any inbuilt deep learning features/frameworks.

Music Genre Recognition | Python/AI: **Jul 2023 – Aug 2023**

- Implemented, trained and tested an ML model that is capable of recognizing the genre of a music sample from 10 different genres using Hidden Markov models

Quadruped robot with localization| IoT/Arduino: **Dec 2022 – Jan 2023**

- Used an Arduino UNO along with 3D printing machinery to create a four-legged robot that can move around either autonomously or using hand gesture controls.

Skills

Programming Languages: Python (Proficient), C++ (Proficient), Java (Intermediate), C#.NET,
Core: Good grasp on concepts such as Linear Algebra, OS, Data Structures & Algorithms, IoT, Device Drivers, Computer Networking and UI Development.
Web Development: HTML/CSS (Proficient), JavaScript (Intermediate), React.Js, Node.Js, Express.Js
Artificial Intelligence: Core Machine Learning, Reinforcement Learning, Deep Learning, Computer Vision, TensorFlow, Pytorch.
Soft Skills: Fluent in English, Hindi, Telugu, Strong Communication and people skills, Confidence and Leadership, Eye for detail and perfectionism, Fast Learner and Adaptive.

Certifications & Credentials

Oracle Cloud Infrastructure 2024 Generative AI Professional – **Oracle:** July 2023
Deep Learning Certification – **Nvidia:** September 2023
Foundational C# Developer – **Microsoft:** October 2023
DataCamp Deep Learning and NLP credentials: Mar 2024 – Jun 2024
Introduction to Deep Learning with PyTorch
Introduction to LLMs in Python
Intermediate Deep Learning with PyTorch
Introduction to Deep Learning in Python
Introduction to TensorFlow in Python
Deep Learning for Text with PyTorch
Deep Learning for Images with PyTorch
Recurrent Neural Networks (RNNs) for Language Modeling with Keras