

# Satvik Choulapally

Final Year Undergraduate Student | D.O.B: 10 March 2004

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Hyderabad, Telangana

## Profile

Creative, adaptive and decisive jack-of-all-trades with a passion for building, learning and innovating. Strong interest learning how computers work at a hardware level, emulation and preservation of technology. Apt Knowledge in artificial intelligence and deep learning architectures and their applications in the industry. Able leader and team player with good resource management skills and an established communication skill.

## Education

Year	Degree	Institute/School, City	Grade
2021 – Current	B. Tech, Computer Science & Artificial Intelligence	Amrita Vishwa Vidyapeetham, Amritapuri	7.82 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 Member @ 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:

May 2023 – Jun 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

### amPulse: Website | MongoDB, ExpressJs, ReactJs, NodeJs:

Dec 2023

- Contributed and developed a college exclusive social media platform with a strong focus on communities and clubs inspired by LinkedIn as a part of the Social Service Responsibility project.

## 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 (Beginner)

### Core:

Good grasp on concepts such as Linear Algebra, OS, Data Structures & Algorithms, IoT, Device Drivers, Computer Networking and UI/UX Development.

### Web Development:

HTML/CSS (Proficient), JavaScript (Intermediate), React.Js, Node.Js, Express.Js (Intermediate)

### 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 2024

Robotics: Aerial Robotics

- University of Pennsylvania: June 2024

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