Sanjith M

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Profile

Enthusiastic Computer Science student with a keen interest in **Artificial Intelligence**, **Computer Vision** and **Machine Learning**. Eager to contribute to cutting-edge projects in areas such as **Edge AI**, **Deep Learning**, and **Neural Network optimization**, while continuously expanding expertise in **real-world AI applications**.

Education

Amrita Vishwa Vidyapeetham, *BTech CSE*   2023 – present | Coimbatore, India
Current CGPA: **7.87**

DAV Boys Senior Seondary School, *Senior Secondary*   2022 – 2023 | Chennai, India
Overall Score: **89.2%**

DAV Boys Senior Secondary School, *Secondary*   2020 – 2021 | Chennai, India
Overall Score: **92%**

Skills

Programming Languages
C/C++, Python, Rust, Haskell, MATLAB, Java, GoLang

Embedded Systems
Arduino, Rasberry Pi

App Dev
Flutter, Dart, React Native, Android Studio

Web Dev
HTML/CSS, React, NextJS, Express, NodeJS, npm, Tailwind CSS, Django

Dev Tools
Linux, Git, AWS, Azure, Docker

Problem Solving
Data Structures, Algo Design

AI/ML
PyTorch, Numpy, Pandas, Jupyter Notebook, MATLAB

Social Media Marketing
Premiere Pro, DaVinci Resolve, Photoshop, Lightworks, Search Engine Optimization

Projects

Autonomous All-Terrain Vehicle, *Team Torpedo*

- Leading a **specialized team** in developing an autonomous vehicle for national-level competition (**aBAJA - SAEINDIA**)
- Designing and integrating **SLAM** systems for dynamic **terrain mapping** and localization
- Developing **pathfinding** algorithms to enable real-time decision-making in unstructured environments

Machine Learning Neural Network, *Handwriting Recognition* 🔗

A **PyTorch** project to detect and recognize handwritten mathematical expressions and classify them.

- Accurate results upto **94%**.
- Used **Rate Scheduling** to account for overfitting.
- **Data Augumentation** for bias reduction.

Research Paper on Image Recognition, *Surgical Instruments Recognition*

- Created a **1.5K+** image dataset by web-scraping that contains over **23 classes** of surgical instruments
- Trained a **YOLOv12** model, and achieved **83%** accuracy in classifying the medical instruments.
- To publish the findings as a research study to advance **AI-driven automation** in healthcare.