Siddhi Pawar

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Education

Vellore Institute of Technology **Sep. 2022 – Present**
Bachelor of Science in Computer Science, Current CGPA :8.11 *Vellore, Tamil Nadu*

Akshay Academy Public School **2019-2021**
Higher School Certificate (HSC) *Percentage: 88.8*

St. Raphael's H.S. School **2019**
Secondary Certificate (SSC) *Percentage: 89.2*

Relevant Coursework

- Data Structures and Algorithms
- Machine Learning
- Design and Analysis of Algorithms
- Object-Oriented Programming
- Web Programming
- Computer Architecture

Experience

Khageshvara Aviation Technology **July 2024 – Present**
Machine Learning Intern *Indore, India*

- Conducting an in-depth analysis of cutting-edge path planning algorithms tailored for autonomous drone systems using **ROS** (Robot Operating System).
- Developing a sophisticated path planning algorithm with ROS, focusing on **obstacle detection**, avoidance, and trajectory optimization for real-time control.
- Creating mission planning software that integrates advanced object detection, dynamic path planning, and simulation functionalities. Presenting the system design, implementation, and key outcomes.

Projects

International Space Drone Competition | *Software Team* **January 2024**

- Achieved first prize at ISDC-2024 by designing and implementing dynamic path planning using the **A* search algorithm**, ensuring optimal obstacle avoidance and seamless waypoint navigation.
- Harnessed the power of **NumPy** and **Pandas** for sophisticated data preprocessing and manipulation, significantly enhancing the precision of visual recognition and trajectory optimization algorithms.
- Applied cutting-edge photogrammetry methods with **WebODM** to convert aerial imagery into high-resolution 3D models and detailed terrain maps for accurate terrain analysis.

BOLT 2.0 | *Machine Learning, Web Devlopment* **February,2024**

- Developed a comprehensive health-care system integrating an AI chatbot for patient interaction.
- Implemented the chatbot using the **Random Forest classification** algorithm to answer patient questions, predict diseases, and recommend treatments.
- Contributed to the front-end development using **React** and **Bootstrap**, ensuring a responsive and user-friendly interface.
- Developed machine learning models with **Python**, leveraging libraries such as **Scikit-learn** and **Pandas** for data processing and model training.

Technical Skills

Programminng: Python, C/C++, JavaScript*, R*, MATLAB*, HTML, CSS, React, Data Structures and Algorithms,ROS*
Developer Tools: VS Code, Mission Planner, Colab, Gazebo*
Libraries: NumPy, Pandas, Scikit learn, Matplotlib, Ardupilot Libraries

Leadership / Extracurricular

SEDS-India **June 2024 – Present**
Software Team
∗ Spearheaded the organization of the prestigious "Star Party", a highlight event at Gravitas 2023 .

Robovitics **June 2024 – Present**
Software Team