Adithyan H

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EDUCATION

Mangalam College Of Engineering

Bachelor of Technology in Computer Science and Engineering

2021-2025

St.Thomas HSS

Higher Secondary Education

Thiruvalla, Pathanamthitta 2019-2021

Ettumanoor, Kottayam

Devaswom Board HSS

Thiruvalla, Pathanamthitta High school Education

2013-2019

Projects

Smart Traffic Analyzer and Controller | Python, YOLOv8, COCO, machine learning August 2024 – May 2025

- Developed an AI-based traffic management system using YOLOv8 for real-time vehicle detection from multiple video feeds, dynamically adjusting signal timings based on vehicle density.
- Implemented a hierarchical priority algorithm to optimize traffic flow, reducing average signal wait time and improving congestion handling efficiency at intersections.
- Built a simulation environment using Pygame to visualize smart traffic signal control based on detected vehicle counts from four input lanes.

College Bus Management System | HTML, CSS, MySQL

Jan 2024 – May 2024

- Developed a College Bus Management System to streamline campus transportation with features like route planning, real-time bus tracking, and automated passenger management.
- Implemented an admin dashboard enabling route assignments, driver scheduling, and live status monitoring, enhancing operational efficiency and reducing manual errors.

Youtube Downloader Telegram Bot | Python, yt-dlp, python Telegram Bot

March 2025 – March 2025

- Developed a Telegram bot for downloading YouTube videos and audio, offering users multiple format options (1080p, 720p, 360p, MP3) with an intuitive user interaction flow.
- Implemented file size optimization using video encoding for downloads exceeding 50MB, ensuring efficient delivery within Telegram's file size constraints

TECHNICAL SKILLS

Languages: Python, C, SQL, HTML/CSS

Frameworks: React, Node.js

Developer Tools: Git, VS Code, Visual Studio, PyCharm

Libraries: Pandas, NumPy, Matplotlib

Internships

Internship on Python | Facein Technologies Pvt Ltd

December 2024

- Completed a 10-day intensive Python internship at Facein Technologies Pvt. Ltd., gaining hands-on experience in core programming concepts and real-world application development.
- Developed and debugged Python scripts for data manipulation, automation tasks, and basic algorithm implementation under mentorship from industry professionals.

Certification Courses

Essentials on Data Science Using Python | Livewire kottayam

September 2022–April 2023

- Completed a certified course on "Essentials on Data Science using Python" from Livewire, covering fundamental concepts in data analysis, Python programming, and machine learning basics.
- Gained hands-on experience with data preprocessing, exploratory data analysis, and Python-based data science libraries such as NumPy, Pandas, and Matplotlib.

National Cadet Corps

June 2021–February 2024

- Actively participated in the National Cadet Corps (NCC) college unit for 3 years, demonstrating discipline, leadership, and teamwork.
- Successfully completed training camps and drills, contributing to various social service and community development activities.