AAYUSH TANDON

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Summary

I am an enthusiastic and driven recent graduate with a solid foundation in software development, data analysis, and technical engineering. Strong problem-solving abilities and a passion for technology. I am eager to apply my diverse skill set and fresh perspectives to a dynamic and innovative team. Ready to contribute to impactful projects and support organizational growth through technical expertise and analytical insights.

Education

Ramrao Adik Institute of Technology, D.Y. Patil University — Navi Mumbai

B.Tech in Computer Engineering | CGPA: **9.04** / 10 — 2020 - 2024

Skills

Language: Python · Java · SQL · C/C++ · Javascript · R

Developer Tools: VS Code · AWS · Tableau · Power BI · Excel

Technologies/Frameworks: Angular · Pandas · Flask · Django

Experience

Tech Mahindra — Mumbai

Data Analyst Intern — 01/2024 - 04/2024

- Strengthened technical proficiency in telecommunications, OSS/BSS, billing systems, data analytics, big data, SQL, DataBricks, and AI.
- Enhanced presentation and documentation skills through the creation of educational materials for diverse technical topics.
- Provided actionable insights and recommendations to reduce churn based on data findings.

IIM Mumbai — Mumbai

Research/Data Analyst Intern — 06/2023 - 07/2023

- Application of various combinatorial optimization problem (Capacitated Vehicle Routing Problem, Traveling Salesman Problem, Knapsack Problem) which reduced the number of delivery vehicles required by 10%.
- Implemented machine learning algorithms in time-series modeling and forecasting, which showcased the underlying patterns and trends in the data and made predictions about the future values of the data, resulted in predicting stock prices, interest rates, and other financial variables.

Training/Certifications

BCG GenAI Job Simulation — Forage

Business Analytics — Harvard Business School Online

Sustainable Business Strategy — Harvard Business School Online

Entrepreneurship Essentials — Harvard Business School Online

Projects

Drowsiness Avoidance System

Developed a real-time drowsiness avoidance system using OpenCV, Keras, and Pygame, integrating Haar cascade classifiers to detect facial and eye regions in live video feeds. Implemented a convolutional neural network (CNN) to classify eye states (open/closed) from video frames and incorporated audio alert mechanisms to notify users upon detecting prolonged eye closure. This project combined image processing techniques with machine learning to achieve robust performance in real-time applications.

Image Caption Generation

Developed an advanced image caption generation system integrated into a Flask-based web application. The system processes and tokenizes captions, converts images into suitable formats, extracts features, and generates accurate textual descriptions for images. This project demonstrates proficiency in deep learning, image processing, and web development, showcasing the ability to create sophisticated AI-powered applications. A paper was also published with the name "Harmonizing Vision and Voice: A Review of Contemporary Research in Image Caption Generation and Text-to-Speech Synthesis" in GIJET Journal(Vol. 10,Issue 1)

Custom OCR system for University's Online Lectures

Engineered a custom Optical Character Recognition (OCR) system for capturing and processing PowerPoint presentations during university online lectures on Google Meet. The system employs advanced OCR techniques to accurately extract text from presentation slides and leverages font size detection algorithms to identify key lecture topics. It integrates with lecture recording software to automatically timestamp identified topics, facilitating efficient navigation for students during playback. This project showcases expertise in computer vision, text recognition, and real-time data processing.