

Aditya Santosh Siras

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ABOUT

Computer Science Engineering student with a strong foundation in data structures, algorithms, and system design. Experienced through ISRO and Indian Railways projects in building scalable, cloud-based applications with Flutter, Python, and real-time databases. Passionate about creating customer-focused, high-performance solutions.

EXPERIENCE

Student Intern

Feb. 2025 – April. 2025

National Remote Sensing Centre (ISRO), Shadnagar, Telangana

- Developed **Bhuvan GeoIntel** to extract and visualize geospatial intelligence from project-related PDFs, enabling data-driven insights.
- Fine-tuned spaCy's `en_core_web_trf` NER model with rule-based techniques and Geopy for accurate mapping of Indian locations.
- Implemented a context-aware query response system using LangChain, Mistral-7B-Instruct, `nomic-embed-text-v1`, and ChromaDB, with Google PSE and web scraping for data retrieval.
- Mapped geolocations on Bhuvan WMS layers using OpenLayers, empowering decision-makers with interactive spatial analysis for planning.

App Developer Intern

July 2025 – Aug. 2025

Electric Loco Shed, Bhusawal – Central Railway (Ministry of Railways)

- Contributed to the development of **LOCO-INFO**, a railway shed management system, by designing and implementing key features for locomotive maintenance scheduling.
- Leveraged a real-time database for synchronization and built the front-end UI with **Flutter**, using **Firebase Firestore (Realtime DB)** for live synchronization of locomotive data across platforms.
- Implemented secure **authentication** and role-based access control to ensure data integrity and user accountability.

Full Stack Developer Intern

Aug. 2025 – Present

Central Railway Engineers Association (CREA), Bhusawal (Remote)

- Contributed to developing the first official web portal for CREA, Bhusawal, transitioning the organization from manual Google Suite processes to a centralized MERN-stack application featuring a secure RESTful API, JWT authentication, and role-based access control (RBAC).
- Engineered the Razorpay payment gateway integration for the multi-step membership application, enabling secure online processing of registration fees and renewals.
- Assisted in the development of other core modules, including the admin panel for content management, the community discussion forum, and the mutual transfer system.

EDUCATION

Shri Sant Gajanan Maharaj College of Engineering

Shegaon, Maharashtra

Bachelor of Engineering in Computer Science Engineering; CGPA: 7.61/10.0

Nov. 2022 – Present

PROJECTS

Bhuvan GeoIntel | Python, spaCy, LangChain, OpenLayers

ISRO Internship

- Developed a geospatial intelligence system to extract and map Indian locations from PDFs using fine-tuned spaCy NER and Geopy. Integrated RAG-based retrieval with LangChain and visualized geolocations on Bhuvan WMS maps for interactive analysis.

Loco-Info | Flutter, Firebase Firestore, Authentication

Ministry of Railways

- Engineered a management system for railway shed operations with **Flutter** and **Firebase Firestore**, digitizing manual records and integrating role-based authentication for secure live locomotive data synchronization.

AI-ML Based Career Counseling System | Machine Learning, Google Firebase

SIH Grand Finale 2023

- Created an AI-ML based platform to guide secondary students in career choices through personalized assessments and informative content. Built with Python, HTML/CSS/JS, Google Firebase, and Dialog flow AI API.

Personal Finance Tracker App | Flutter, Firebase

- Developed a personal finance tracker app with user authentication, expense tracking, and data persistence using Firebase. Implemented clean architecture with state management for a seamless cross-platform experience.

TECHNICAL SKILLS

Languages: Python, Kotlin, Java, C/C++, SQL, JavaScript, HTML/CSS

Mobile Development: Flutter, Dart, Firebase, Kotlin, Java, Android Studio, Jetpack Compose, XML, Retrofit, MVVM

Frameworks: Bootstrap, Flutter

Developer Tools: Git, Docker, Google Cloud Platform, Google Firebase, VS Code, PyCharm

Libraries: pandas, NumPy, Matplotlib, scikit-learn, TensorFlow, spaCy, LangChain, Geopy, OpenLayers, ChromaDB

CERTIFICATIONS

Machine Learning Specialization: Stanford University and Deeplearning.AI on Coursera
Deep Learning Specialization: Stanford University and Deeplearning.AI on Coursera
Python for Data Science: NPTEL
Exceptional Performance in Code Vipassana Season 5: Duet AI

ACHIEVEMENTS

Shortlisted in Smart India Hackathon Grand Finale 2023 for "AI-ML Based Career Counseling System"
Internal Hackathon Winner for Smart India Hackathon 2024

PUBLICATIONS

Accepted Paper: "An Integrated Framework for Geospatial Content Extraction and Semantic Summarization from PDF Documents" — to be presented at **IEEE InGARSS 2025**, IIIT Bhubaneswar (Dec. 2025)