

Swarom Firagannavar

Pune, Maharashtra | swarom66@gmail.com | +91 7507919125 | [GitHub](#) | [Portfolio](#)

PROFESSIONAL SUMMARY

Final-year Computer Science Engineering student with demonstrated experience in machine learning, full-stack development, and API-driven systems. Proficient in Python, JavaScript, TensorFlow, and Java, with a strong foundation in Data Structures, OOP, and backend development. Passionate about building scalable, intelligent systems and seeking software engineering or machine learning internship opportunities to deliver meaningful impact within a dynamic engineering team.

SKILLS

Languages: Python, Java, JavaScript

Web: HTML, CSS

Frameworks/Libraries: FastAPI, TensorFlow, Keras, Grad-CAM (Explainable AI)

AI/ML: CNN, Transfer Learning (MobileNetV2), LLM Integration

Databases: MySQL, MongoDB, Firebase (Firestore)

Tools & Platforms: Git, GitHub, Postman, Hugging Face Inference API, REST APIs, Gemini API

Core CS: Data Structures, OOP, DBMS fundamentals

PROJECTS

FOLIAGE CARE: AI PLANT PATHOLOGIST

- Technologies: JavaScript, Python, TensorFlow/Keras, FastAPI, Gemini API, Grad-CAM, Firebase
- Engineered **MobileNetV2** (2.4M params, 9.25MB) via transfer learning on **14,500+ images**, achieving **99.27% accuracy** across 38 disease categories (22 diseases, 6 crop types); reduced training time **60%** with early stopping in **16 epochs / <3% loss**
- Built FastAPI backend serving disease predictions with ~500ms inference time, integrating real-time weather data APIs for environmental context
- Designed multi-modal system combining CNN predictions with weather metrics to generate contextual treatment recommendations via LLM integration.
- Enhanced model transparency by integrating Grad-CAM segmentation to highlight infected regions directly on the user dashboard.

TERM-TRACK SYSTEM — Course Management Web App

- Technologies used: Built with HTML, CSS, JavaScript, MySQL
- Built an interactive course catalog with real-time search and multi-filter support (category, difficulty, duration), allowing students to quickly find and save relevant courses via a personalized bookmark system.
- Integrated Coursera API to fetch and parse live JSON metadata for courses, ensuring real-time catalog accuracy.
- Developed a multi-filter search engine (Category, Difficulty, Duration) and a persistent MySQL-backed bookmarking system for personalized user tracks.

CAB BOOKING SYSTEM

- Technologies used: HTML5, CSS, JavaScript.
- Engineered a dynamic pricing algorithm adjusting fares based on demand, distance, and time-of-day, mirroring real-world surge pricing models
- Implemented JWT-based authentication with secure login/register flow and session management for authorized access
- Built an interactive booking interface with fare estimation, pickup/drop selection, ride history dashboard, and a simulated driver assignment system based on location proximity

EDUCATION

MIT ADT University, Pune
B.Tech CSE (Pursuing) – 7.78 CGPA | 2026

The Lexicon International School, Pune
12th – First class | 2022

The Lexicon International School, Pune
10th – First class with distinction | 2020

CERTIFICATES

- Cisco Networking Basics
- HTML, CSS & JS for Web Developers (Coursera)
- Relational Database Design (Coursera)
- Fundamentals Of GIT(Coursera)
- AWS Academy Graduate - AWS Academy Cloud Foundations

LANGUAGES

- Hindi
- Marathi
- English
- Spanish- Beginner

HOBBIES

- Football
- Music

