Suryansh Sanket Ambekar

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Summary

Enthusiastic software engineer with strong foundation in Python, AI/ML, and backend development. Skilled in designing and deploying deep learning models, data-driven applications, and scalable backend systems. Experienced through internships, research-driven projects, and hackathon participation, with growing focus on publishing AI/ML research.

Technical Skills

Programming Languages: Python, JavaScript, C++, SQL
Libraries & Frameworks: NumPy, Pandas, Scikit-learn, TensorFlow, Keras, PyTorch, Matplotlib, Git, Nodejs, Expressjs, MongoDB, React
Domains: Machine Learning, Deep Learning, Data Science, Full Stack Web Development, Data Analytics, Computer Vision, Image Processing, PowerBI

Internships

NewLink Automaton Aug 2025 – Dec 2025
Embedded Software Intern
Working on LED and DALI driver and controller development, coding embedded C and C++ for STM32-based intelligent lighting systems.

COEP Technological University, Pune Jun 2025 – Jul 2025
Control Systems Software Intern
Developed control logic and software workflows for electric scooter systems, supporting model-based control design and translating system behavior into structured, testable code.

Google AI for Developers Jan 2025 – Mar 2025
Learning Cohort Internship
Gained hands-on experience in supervised/unsupervised ML, preprocessing, and model implementation.

Projects

Adaptive Question Paper Generator using Transformer Models and Retrieval Augmented Generation Oct 2025 – Dec 2025
Python, Generative AI, Deep Learning, AIML
Designed and deployed a GenAI-based question generation system using a fine-tuned T5 transformer with Retrieval-Augmented Generation (FAISS + sentence embeddings), enabling automatic question creation from text and PDFs via a Streamlit web application.

Satellite Road Extraction System using Deep Learning Segmentation Sept 2025 – Nov 2025
Python, Deep Learning, AIML
Built and deployed an end-to-end CNN-based road extraction system using SegNet and DeepLabV3+, with custom preprocessing and Dice + BCE loss for class imbalance, achieving 0.58 mean IoU

on satellite imagery and deploying the trained model via an interactive inference GUI.

Stock Price Forecasting using a Hybrid Markov-TCN-BiLSTM Model Mar 2025 – May 2025
Python, Deep Learning, AIML
Developed a hybrid deep learning model (Markov-TCN-BiLSTM) achieving 1.68% MAPE for accurate stock price prediction of Apple Inc. using historical data.

YOLOv8-Driven Granular Morphological Subtyping of B-cell Acute Lymphoblastic Leukemia in Peripheral Blood Smears Jan 2025 – Jun 2025
Python, Deep Learning, AIML, MATLAB
Developed a YOLOv8-based deep learning model achieving 99.3% accuracy for precise classification of four B-cell subtypes in Acute Lymphoblastic Leukemia using blood smear images.

Identifying Potential Hazardous Asteroids using AIML Aug 2024 – Nov 2024
Python, AIML
Performed multi-model classification and visualization to identify optimal ML algorithms for hazardous asteroid prediction using AIML.

Doctor Appointment Booking System Aug 2024 – Nov 2024
MERN stack
Developed a MERN stack system with scheduling, doctor search, and admin management features, ensuring smooth frontend-backend integration.

Education

MIT Academy of Engineering, Pune 2022 – 2026
B.Tech. in Electronics and Telecommunication Engineering CGPA: 8.82 / 10