



MIHIR LAKHANI

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PROFESSIONAL SUMMARY

2027 B.Tech Computer Science candidate with hands-on experience building end-to-end machine learning pipelines, explainable AI solutions, real-time digital twins, containerized REST services, and full-stack telemetry platforms. Strong foundation in Python, Docker, Flask, MongoDB, React, Git, and production-oriented model evaluation, with a focused interest in enterprise AI-native applications, RAG pipelines, agentic workflows, multi-agent systems, and LLM-integrated products.

PROFESSIONAL EXPERIENCE

AI/ML Research Intern - Network Digital Twin Project	<i>Jul 2025</i>
- Built an end-to-end Random Forest pipeline for 6G SLA breach prediction on production-style network KPI data, achieving an F1-score of 0.92. - Integrated SHAP-based explainability and root-cause analysis to make model outputs interpretable and actionable for engineering decisions. - Contributed to a digital twin workflow linking AI predictions with proactive network-control strategies for real-time operational decision-making. - Won 3rd Prize at Nokia Campus Connect 2025 for the AI-powered network SLA prediction system.	

PROJECTS

Fleet Smart Vehicle Digital Twin	<i>Aug 2025 - Nov 2025</i>
- Engineered a real-time distributed platform to ingest, synchronize, and visualize live fleet telemetry through containerized backend services and a React interface. - Developed REST APIs, MQTT-based event flows, and modular twin-state services; designed Eclipse Ditto Thing schemas for scalable, cloud-ready deployment.	
5G Handover Prediction using Stability-Aware ML	<i>Jan 2026 - Apr 2026</i>
- Developed a Novel proactive mobility decision engine combining network KPIs, signal prediction, trend analysis, and custom Pt/St/Vt/Rt logic to reduce unstable handover triggers. - Outperformed traditional RSRP-threshold logic by reducing degraded-signal duration by 70 seconds in a 300-second multi-gNB simulation.	
Fraud Detection on 6M+ Bank Transactions	<i>May 2025 - Jun 2025</i>
- Built a scalable preprocessing, feature-engineering, and inference pipeline for 6M+ transactions using XGBoost and SMOTE to address severe class imbalance. - Achieved 99.93% accuracy and detected 1,569 fraudulent transactions while optimizing recall and limiting false positives with production-oriented metrics.	
Parkinson's Disease Detection using ITDO Attention DenseNet	<i>Jul 2025 - Aug 2025</i>
- Implemented an end-to-end EEG pipeline for preprocessing, feature engineering, training, and evaluation; optimized Attention DenseNet with Improved Tasmanian Devil Optimization. - Achieved an F1-score of 0.89 on unseen neurological signal data.	

TECHNICAL SKILLS

AI/ML Engineering: Python, machine learning pipelines, Agentic AI, model inference, statistical and signal analysis
AI Systems & Backend: REST APIs, Flask, data pipelines, event-driven telemetry, containerized services, Docker, MQTT, MongoDB, PostgreSQL, Eclipse Ditto, n8n
Full-Stack & Engineering: React, HTML, CSS, C/C++, Git/GitHub, Jupyter, modular software engineering

EDUCATION

B.Tech, Computer Science - SRM Institute of Science & Technology, Chennai	<i>2023 - 2027</i>
Class XII, Science with Mathematics - St. Paul's Sr. Sec. School (CBSE), Rajasthan	<i>2021 - 2022</i>
Class X, Secondary Education - Maharana Mewar Public School (CBSE), Rajasthan	<i>2019 - 2020</i>

CERTIFICATIONS & ACHIEVEMENTS

Achievements: 3rd Prize - Nokia Campus Connect 2025 1st Place - Creative Ingenuity 2023 (AutoCAD Design Competition)	
Certifications: Microsoft AI & ML Engineering (Coursera) Machine Learning with Python - IBM Python for Everybody - University of Michigan	