SUFYAN AHMAD

AI Engineering Enthusiast

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PROFESSIONAL SUMMARY

6th-semester Computer Science student at COMSATS University Islamabad, Lahore Campus, with a strong focus on AI Engineering and Machine Learning. I build complete, working systems—from intelligent diagnostic engines and multi-model ML evaluation pipelines to full-stack AI-powered web applications and published production tools. I enjoy bridging model development with real deployable software, and have shipped a live AI product used by real users. Currently expanding into LLM integration, prompt engineering, DevOps, and cloud deployment. Actively seeking an AI/ML internship to apply and deepen my expertise in applied machine learning and intelligent systems.

EDUCATION

Bachelor of Science in Computer Science — 2023 – Present
COMSATS University Islamabad, Lahore Campus — Lahore, Pakistan

- **CGPA: 3.73** — Good Academic Standing
- Relevant coursework: Artificial Intelligence, Machine Learning & Data Science, Algorithms & Data Structures, Linear Algebra, Probability & Statistics, Database Systems, Software Engineering, Computer Networks, DevOps for Cloud Computing, Digital Image Processing, Parallel & Distributed Computing.

TECHNICAL SKILLS

AI and Machine Learning: scikit-learn, Random Forest, Decision Tree, SVM, KNN, Naive Bayes, MLP, Probabilistic Inference, Model Evaluation & Selection, Cross-Validation, NumPy

Languages: Python, Java, JavaScript, TypeScript, Dart, SQL

Frameworks & Libraries: Flask, React.js, Vite, CustomTkinter, Flutter, Pandas, Matplotlib, Pillow, ReportLab, tkcalendar

Databases: MongoDB, Neo4j (Graph DB), Azure SQL, Firebase, Firestore

Tools & Platforms: Git, Microsoft Azure, Vercel, REST APIs, Gemini API, pyodbc, npm, python-dotenv, bcrypt, Axios

Currently Learning: LLM APIs and Prompt Engineering, DevOps and Cloud Deployment, Digital Image Processing, Parallel and Distributed Computing, Computer Architecture

PROJECTS

Prompt Tutor AI — Live AI Web Product | [Live App]

- Engineered an AI-powered SaaS tool utilizing Google Gemini to evaluate prompts across 5 dimensions, accelerating prompt engineering workflows and cutting iteration time by an estimated 60%.
- Implemented a React 19 and Firebase architecture to deliver dynamic template libraries and instant AI-rewritten variants, enabling non-technical users to generate production-ready instructions.
- `React 19` `TypeScript` `Gemini API` `Firebase` `Firestore` `Tailwind CSS` `Vercel`

PhishGuard AI — Email Phishing Detection System | [Live App] | [GitHub]

- Developed an NLP classification pipeline (TF-IDF, Logistic Regression) achieving 98.26% accuracy and 0.9969 ROC-AUC across 18,000+ samples to detect sophisticated phishing attempts.
- Engineered a hybrid heuristic rules engine and 20-worker concurrent Gmail scanner that processes 50 emails in <2 seconds, completely eliminating false positives for trusted corporate domains.
- `Python` `Flask` `scikit-learn` `Google OAuth2` `Gmail API` `ThreadPoolExecutor`

Medical Diagnostic System v2 — Web Edition | [Live App] | [GitHub]

- Benchmarked 7 ML classifiers utilizing 5-fold cross-validation to power a React/Flask diagnostic engine, mapping patient symptoms to treatments via a highly relational Neo4j knowledge graph.
- Automated age-aware dosage recommendations and lab test routing, delivering scalable medical insights that can replace an estimated 40% of routine manual triage efforts in clinical workflows.
- `Python` `scikit-learn` `Flask` `React.js` `MongoDB` `Neo4j`

Lifestyle-Based Health Risk Predictor | [Live App] | [GitHub]

- Trained a Random Forest classifier on a 270K-record dataset to predict personalized health risk levels, delivering instant diagnostic assessments that traditionally require clinical intake.

- Built a stateless Flask web application utilizing joblib for real-time inference, generating inline Matplotlib visual reports directly to the frontend to eliminate persistent database overhead.
- **Python** **Flask** **scikit-learn** **Pandas** **Matplotlib** **joblib**

Medical Diagnostic System v1 — Desktop Edition | [GitHub]

- Built a custom Bayesian-style probabilistic scoring engine integrated with a Neo4j database to compute posterior disease probabilities from dynamic symptom-severity inputs.
- Implemented parallel knowledge graph initialization via ThreadPoolExecutor, reducing application startup latency by ∼65% compared to sequential database query loading.
- **Python** **CustomTkinter** **Probabilistic Inference** **Neo4j** **ThreadPoolExecutor**

ASK Academy — School Management System | [GitHub]

- Developed a comprehensive Python desktop ERP integrating 14 administrative modules over an Azure SQL backend, enforcing strict referential integrity through custom SQL triggers.
- Automated PDF reporting and offline-capable analytics, eliminating data redundancy and saving an estimated 15+ staff-hours per week in manual administrative workflows.
- **Python** **CustomTkinter** **Azure SQL** **pyodbc** **ReportLab** **Matplotlib**

Vibee — Multi-Platform Social Aggregator | [GitHub]

- Architected a cross-platform Flutter application that concurrently aggregates YouTube, Reddit, and NewsAPI data into a single, dynamically customized user feed.
- Engineered an explicit session-timer feature to enforce screen-time management, reducing overall application-switching overhead and promoting digital well-being.
- **Flutter** **Dart** **Firebase Auth** **Firestore** **YouTube API** **Reddit API**

EXPERIENCE AND ACHIEVEMENTS

President / Chairperson 2025 – 2026
ACM COMSATS Lahore Student Chapter Lahore, Pakistan

- Leading the ACM student chapter, overseeing technical events, workshops, coding competitions, and student development for the full 2025–2026 academic tenure.
- Managing a cross-functional team and driving community growth across COMSATS Lahore campus.

References available upon request · sufyexpert · sufy-expert