ATHAR SAYED

ACADEMIC DETAILS

Mukesh Patel School of Technology, Management & Engineering, NMIMS · **2024 – 2026**
- M. Tech. – Artificial Intelligence   (**CGPA**:8.82/10)

Symbiosis Institute of Engineering and Technology, Symbiosis International University · **2019 - 2023**
- B.Tech. – Electronics & Telecommunication Engineering
- Honors in Mechatronics & Automation   (**CGPA**: 7.11/10)

PROJECTS

IOT Based Stampede Detection System · **2023**
- Developed an IoT-based system to detect stampedes using data from four vibration sensors.
- Created an **in-house dataset** consisting of sensor readings (independent variables) & a binary stampede indicator (dependent variable).
- Conducted **data preprocessing with 2K** data samples and optimized model performance
- Trained a Logistic Regression model, achieving **93% accuracy** in classification.

Predictive Analysis of Stress Based on Vital Physiological Metrics · **2024**
- Built a real-time stress detection system using wearable data, improving response **accuracy by 25%.**
- Designed a real-time visual meter to predict the stress level of a person using visual meter **(0-100%).**
- Deployed on Hugging Face Spaces using Docker.

IntelliTube – AI-Powered YouTube Insight Engine · **2025**
- Developed an end-to-end YouTube video analysis platform supporting **100% local execution** with no external APIs, enhancing **data privacy and reducing latency by 70%.**
- Engineered audio processing pipeline using **Faster Whisper**, achieving **95% transcription accuracy** on diverse video inputs.
- Built a multilingual sentiment engine to scrape and analyze **100+ YouTube comments per video**, translating non-English content and classifying sentiment into positive, neutral, and negative categories with **91 % accuracy**.
- Implemented **secure user authentication** with encrypted login/signup workflows, enabling personalized access up to **50+ users**.

Vigilix: Network Intrusion Detection & Monitoring System · **2025**
- **Developed a Network Intrusion Detection System (NIDS)** using the UNSW-NB 15 dataset, achieving **80%+ accuracy** in intrusion detection.
- **Evaluated machine learning models** (XGBoost, Random Forest, Isolation Forest), with XGBoost achieving **87.95% accuracy**, **85.35% precision**, and **89.61% F1-score**.
- **Optimized XGBoost performance** through hyperparameter tuning, improving accuracy by **13%** (from 78.91% to 87.95%) and F1-score by **5.25%**.
- **Automated end-to-end project workflow** by integrating **Kafka, Prometheus**,**Grafana** and a custom dashboard, enabling **99.9% uptime**.

WORK EXPERIENCE

Technical Intern
FortytwoLabs, Pune, India · **2023**
- **Contributed to maintaining CI/CD pipelines** by writing YAML scripts and debugging build issues under guidance**.**
- **Assisted in configuring Nginx and Linux-based reverse proxy setups** to optimize application routing & improve deployment reliability
- **Configured Apache ActiveMQ within Docker containers on CentOS,** enabling reliable message brokering and client-server communication.
- **Deployed Java-based web applications** by packaging and deploying WAR files on Apache Tomcat, ensuring stable server-side execution.

FortytwoLabs, Pune, India · **2023-2024**
- Built and maintained **6+ production-ready C++ libraries** with cross-platform support (Linux, Windows, macOS), achieving **100% build stability** and reducing integration issues by **30%**
- Implemented cryptographic features (e.g., policy signature modules), enhancing security and reducing processing time by **40%**.
- Worked on **143 unit tests** using **Google Test (GTest)** and **JUnit**, achieving **95% code coverage** and reducing bugs by **50%**.
- Used **Postman** and **JMeter** for API and performance testing, improving system performance by **25%**.
- Documented **100+ error codes**, improving client troubleshooting efficiency and decreasing support tickets by **40%**.
- Collaborated with **QA, DevOps, and Product teams**, contributing to faster and more reliable software releases.

CERTIFICATIONS

- Complete Python from Beginner to Master – **Udemy**
- Intermediate Machine Learning - **Kaggle**
- Linux Mastery Mastering the Command Line - **Udemy**
- Mastering Data Structure & Algorithm using C and C++ - **Udemy**
- Google Cloud Skills Boost Course on LLM, Vertex AI, Gemini & Principles of Google Cloud

PUBLICATION

- IOT Based Crowd Detection and Stampede Avoidance using Predictive Analysis - **IEEE Xplore · Apr 4, 2023**

SKILLS

- **Programming & Analytics:** Python | C++ | C | DSA
- **Tools & Libraries:** NumPy | Pandas | Matplotlib | Seaborn | Scikit-Learn | Keras | Tensorflow | Pytorch | Streamlit Gradio | OpenAI | Langchain | Postman | PySpark | Docker | Git | Gitlab | Kubernetes
- **Database Management:** MongoDB | PostgreSQL | MySQL
- **Operating Systems**: Ubuntu | Windows | Raspberry Pi OS | Debian | CentOS | MacOS
- **Areas of Interest:** Machine Learning | Deep Learning | LLM | IOT
- **Non-Technical Skills:** Leadership | Time-Management | Creativity | Teamwork | Critical Thinking

EXTRA CURRICULAR

- Student Volunteer at IGiftLife Social Service NGO
- Technical head at Vidyut Techfest
- Placement Coordinator, M.Tech AI Batch