# **IRFAN SHAIKH**

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#### **SUMMARY**

B.Tech student in Artificial Intelligence and Data Science at AISSMS IOIT with hands-on experience in machine learning, NLP, and data analysis. Contributed to real-world projects during an internship at AI Adventures LLP and led peer-driven initiatives as the ML Club Lead. Enthusiastic about continuous learning and building scalable AI systems.

#### **EDUCATION**

Bachelor of Technology, AISSMS Institute of Information Technology

2022 - 2026(Expected)

Artificial Intelligence and Data Science CGPA: 7.3/10.0

Coursework: Artificial Intelligence, Data Structures, Deep Learning, Machine Learning, ML Ops, Cloud Computing, Natural Language Processing, Discrete Mathematics, Statistics, Power BI, Computer Networks, Database Management, Software Engineering, Ethical Hacking, Web Technology, Data Science, Tableau, Pattern Recognition and Application

#### **EXPERIENCE**

# Machine Learning Intern

AI Adventures LLP

Jun 2024 – Aug 2024 Pune, India

- Designed and implemented a mentorship framework for junior interns, increasing project delivery rate by over 40%.
- Built and evaluated ML models for real client datasets using Python, scikit-learn, and Streamlit; contributed to model deployment using Flask.

#### **PROJECTS**

#### Water Potability Detection with CI/CD Pipeline

Built a full-stack ML web app to predict drinkability of water based on parameters like pH, sulfate, and conductivity. Implemented CI/CD using GitHub Actions and Docker; tracked model performance using MLflow and DagsHub. Achieved over 90% accuracy and deployed using Flask.

# Image Captioning using CNN + LSTM + Transformers

Initially trained a custom CNN+LSTM model from scratch on the Flickr8k dataset, but results were suboptimal. Later fine-tuned a Transformer-based model and deployed it using Streamlit for real-time image caption generation.

# English to Hindi Machine Translation (Transformer)

Started with a basic sequence-to-sequence model trained from scratch on a parallel Kaggle dataset. Improved results by implementing a Transformer model using PyTorch, and deployed it with Streamlit for interactive text translation.

# Spam Message Detection (NLP)

Developed a text classifier to detect spam in SMS and email using TF-IDF and a Naive Bayes model. Performed full NLP preprocessing and deployed the model using Streamlit. Achieved 97% accuracy on test data.

#### **SKILLS**

Programming Languages: Python, C++, C

AI/ML Technologies: scikit-learn, TensorFlow, PyTorch, NLP (TF-IDF, Naive Bayes), Transformers, Prompt Engineering, Hugging Face

Web & Deployment: Flask, Streamlit, HTML/CSS, SQLite, Joblib, Pickle

Data & Visualization: Pandas, NumPy, Matplotlib, Seaborn, Power BI, Tableau, MySQL

Soft Skills: Team Collaboration, Project Management, Problem Solving

#### **LEADERSHIP**

• AI/ML Student Chapter Lead, AISSMS IOIT — Led the ML Club, mentoring peers and organizing technical events such as workshops, hackathons, and speaker sessions focused on AI/ML and data science.

- Organized hands-on workshops under the ML Club, including a **LaTeX Workshop** for technical report writing and an **MLOps Workshop** introducing model lifecycle, versioning, and deployment tools.
- Media and Publicity Executive, AISSMS IOIT Managed branding, promotions, and outreach for departmental and institute-wide technical events, boosting participation and visibility.

# RESEARCH

• Published Research Paper in IJRASET — Published a research paper titled "Security Report Generation via LLM-RAG Assisted Directory Scanning" in the International Journal for Research in Applied Science and Engineering Technology (IJRASET), Volume 13, Issue V, May 25.

Paper ID: IJRASET71261 View Publication Online

# **EXTRA-CURRICULAR ACTIVITIES**

• Wrote a Medium blog on **Hyperparameter Tuning in Machine Learning**, covering techniques like Grid Search, Random Search, and Bayesian Optimization with real examples.

Read the blog here