

# Saad Ahmad

COMPUTER SCIENTIST · MACHINE LEARNING ENGINEER · DEVOPS ENGINEER

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## Work Experience

### FAST NUCES

COMPUTER SCIENCE INSTRUCTOR

Aug. 2024 - to-Date

FAST NUCES Management acknowledged my conceptual studies, particularly in Linux and Problem Solving, and hired me as a Computer Instructor at the Peshawar Campus in August 2024, shortly after I was awarded my Graduate Degree in BS-CS. I am currently transferring my knowledge to the BS-CS students at FAST NUCES Peshawar.

### COLAB (Research Lab)

FAST NUCES

TEAM LEAD

Nov. 2022 - Jun. 2024

- Led and facilitated successful workshops and presentations on diverse technologies, including AI and DevOps.
- Provided mentorship to junior members, sharing insights and experiences to foster their professional growth.

### Machine Learning / Deep Learning / Data Science

Remote / Peshawar

AI/ML ENGINEER (FREELANCE & ACADEMIC)

May 2022 - Present

- Developed and deployed machine learning models for classification, regression, and NLP tasks using Python (scikit-learn, TensorFlow, PyTorch).
- Worked on end-to-end ML pipelines: data preprocessing, model training, hyperparameter tuning, and evaluation.

## Projects

### Real-Time Anomaly Detection in Kubernetes Cluster using Three-Way Decisions

FAST NUCES

FINAL YEAR PROJECT (FYP)

Sep. 2023 - Jun. 2024

- Developed an algorithm for detecting anomalies in Kubernetes clusters with high precision and low false positive rates using three-way decision theory.
- Implemented the algorithm in a live Kubernetes environment for real-time monitoring and alerting.
- Conducted extensive testing to validate performance under various load conditions.
- Tools:** Python, K8s, Prometheus, Grafana, Locust, InfluxDB, GitHub.

### Cyber-Attack Classification in Network Traffic

6th Semester

ARTIFICIAL INTELLIGENCE

Jan. 2023 - June. 2023

- Developed machine learning models for classifying cyber-attacks in network traffic using classification and clustering algorithms.
- Preprocessed and cleaned a given dataset containing network traffic attributes to enhance model performance.
- Applied feature engineering techniques to extract relevant features for improved classification accuracy.
- Implemented multiple classification and clustering algorithms to predict attack types and evaluated their performance.
- Analyzed and reported model performance metrics to assess the effectiveness of different approaches.

### Coding Tutorials Written

Online

BLOG

Sep. 2021 - Present

- Authored tutorials on topics including **DevOps:** Docker, Puppet, Hadoop; **Cloud Computing:** AWS, Azure; **ERP:** Odoo.
- Focused on clear explanations for beginners, fostering a learning community through reader engagement.

## Skills

#### Programming

Proficient in Python, C/C++, Bash.

#### Machine Learning

Experienced with Scikit-learn, TensorFlow, Keras, Pandas, NumPy.

#### Deep Learning

Hands-on with CNNs, RNNs, Transfer Learning, Fine-tuning with TensorFlow/Keras.

#### AI Research Tools

Familiar with LangChain, Gemini API, OpenAI API, Hugging Face Transformers.

#### Development Tools

Jupyter, Git, Linux (Arch, Ubuntu), VS Code, Anaconda.

#### Cloud & Compute

Basic experience with AWS (S3, EC2), Google Colab, Kaggle Notebooks.

## Education

### FAST NUCES(National University of Computing and Emerging Sciences)

Pakistan

B.S. IN COMPUTER SCIENCE

Sep. 2020 - Jul. 2024

- Courses included Programming Fundamentals, Data Structures, Database System, Algorithms, Operating Systems, Artificial Intelligence, Cloud Computing.