

Syed Moiz Ali

✉ syedmoizali07@gmail.com  moizali01  moizali01

EDUCATION

Lahore University of Management Sciences – B.S Computer Science 2021-2025

- **Relevant coursework:** Deep Learning, Machine Learning, Network Security, Topics in Large Language Models, Topics in Network Security, Computer Vision, Probability, Algorithms, Discrete Math.

EXPERIENCE

Student Researcher – **Security & Privacy Lab** (Advisor: Dr Fareed Zaffar) Mar 2024 – Present

- **LLM Safety Alignment Research** (Co-Advised by Dr. Yasir Zaki, NYU Abu Dhabi)
 - Investigated task-specific safety degradation in fine-tuned LLMs.
 - Created a multitask safety dataset to enhance safety across downstream tasks, improving security of fine-tuned models with task-specific safety guardrails.
 - Co-authored a paper under review at COLING'25
- **LLM-Integrated Source Code Debloating** (Co-advised by Dr. Ashish Gehani (SRI International) and Dr. Sazzadur Rahman (University of Arizona))
 - Integrated LLMs with existing debloaters using a multi-agent RAG pipeline to improve security and stability in debloated software.
 - Developed specialized LLM prompts to retain critical code for functionality and generality.
 - Enhanced stability using LLVM coverage and code semantics, with minimal size impact.

Teaching Assistant – Computer Science Department, LUMS Sep 2023 - Present

- Computer Vision Fundamentals (Fall 2024, Dr. Murtaza Taj): Designed and evaluated programming assignments and quizzes in a graduate-level course.
- CS100: Computational Problem Solving (Spring 2023, Dr. Fareed Zaffar): Conducted tutorials, graded assignments for 90 students, and offered individual support.
- CS200: Introduction to Programming (Fall 2023, Dr. Shafay Shamail): Led tutorials, graded labs and quizzes for 80 students, and provided individual assistance.

Applied ML Intern – **Dr Zubair Khalid** Jun - Aug 2023

- Developed a high-performance web scraper using selenium and multithreading, extracting **electricity consumption** data of over **3 million** users across Lahore.
- Engineered an LSTM-based time series **forecasting** model to predict **feeder overloading**, aiming to improve grid management.
- Analyzed **seasonal consumption** patterns to identify **poverty hotspots**.

PROJECTS

Tradesnap.ai – Developed a LLM-based platform reducing the entire **stock trading** process to a **single** multilingual **conversation interface**, reducing user friction, and increasing accessibility.

Nighttime Wildlife Monitoring – developed a hierarchical model that leverages enhanced images and OpenAI's CLIP for classification. I fine-tuned CLIP to improve detection accuracy in challenging nighttime conditions, achieving a 0.95 accuracy and an F1-score of 0.89.

Social Media Toxicity Classifier – Finetuned Llama2 to develop a social media toxicity detection achieving a **ROC** of **0.85** and F1-Score of **0.89** across **6** toxic classes.

TECHNICAL SKILLS

- **Language:** Python, JavaScript, C++, Haskell, HTML, CSS.
- **Technologies/Frameworks:** PyTorch, TensorFlow, ReactJS, LangChain, Pandas, LlamaIndex.