SYED MUHAMMAD USMAN ZAFAR

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[LinkedIn](#) [Portfolio](#) [Github](#)

7th-semester Computer Science student with hands-on experience in AI/ML, Web, and Android development. Passionate about building impactful solutions and improving user experiences through technology

EXPERIENCE

AI Systems Intern & Team Lead-Data Science Department, FAST-NUCES   • *June 2025 - Aug 2025*

Lead a **5-member team** in developing **PaperPilot**, a **neuro-symbolic AI platform** for automated academic paper co-authoring.

- Designed and implemented **specialized agents** (LLM Extraction Agent, Research Agent, Writing Agent, Citation Agent, Knowledge Graph Builder, and Orchestrator) to collaboratively draft, structure, and refine academic papers.
- Automated **80%** of the end-to-end research workflow, reducing manual effort by **90%** and improving citation accuracy by **70%** for **50+** beta users.
- Delivered features like dynamic graph visualization, auto-citation planning, and DOCX export for seamless user experience.
- Technologies**: Python, Streamlit, NetworkX (Knowledge Graphs), Large Language Models(LLMs), DOCX Export**

Software Engineering Intern-DropShot   • *June 2025 - Aug 2025*

- Developed and optimized front-end dashboards using **React and TypeScript** for real-time padel player performance analytics.
- Contributed to system design discussions, improving dashboard architecture and scalability.
- Technologies**: React, TypeScript, Tailwind, REST APIs, Git, Figma**
- **[Website Link](#)**

Junior Machine Learning Engineer-Omdena (Client: IREX)   • *Remote • June 2024 - Aug 2024*

Collaborated with a global team to develop AI-powered content moderation and fact-checking tools across the Dominican Republic and Colombia.

- Built a performance analysis notebook using Python, categorizing **10,000+ texts** with **85%+** accuracy into facts, opinions, and declarations.
- Enhanced a fact classification agent, improving content review workflow efficiency by **30–40%.**
- Technologies**: Python, Pandas, Scikit-learn, Jupyter Notebook, Machine Learning, NLP**

PROJECTS

Patient Influx Analysis Dashboard – Mansoorah Hospital   • May 2025

- Designed and deployed an interactive **Streamlit dashboard** analyzing quarterly patient influx from **31 hospital departments**, reducing manual report generation time by **50%** and improving management's ability to identify trends and peak load periods.
- Performed **end-to-end data cleaning and analysis** on large noisy CSV datasets, enabling accurate visualizations and actionable insights for **high-stakes stakeholder meetings**.
- [App Link](#)

MediTrack - Android Personal Health Companion App   • April 2025

Led the development by using **Kotlin, Java** and **Material 3 components,** collaborating with a team to ensure seamless user experience

- Enabled users to schedule & track medications, upload prescription, and share them via integrated file/image upload and photo capture features.
- Implemented pharmacy locator, BMI calculator and nutrition info viewer for enhanced user functionality.
- Utilized **Firebase** for **user authentication** and real-time data storage.

ZakatFlow - Automated Zakat Computation System   • *April 2024*

- Built and deployed a **Streamlit-powered Zakat automation tool**, streamlining financial calculations and **reducing manual effort by 90%** for **500+ users** during Ramadan.
- Integrated dynamic asset tracking and distribution visualizations, improving calculation transparency and saving hours of manual work for community members.
- [App Link](#)

TECHNICAL SKILLS

Languages: Python · Java · Kotlin · C++ · TypeScript

Frameworks & Tools: React · Android SDK · Streamlit · Firebase

AI & Data: Machine Learning · NLP · Large Language Models (LLMs) · Knowledge Graphs

Version Control: Git / GitHub

EDUCATION

National University of Computer and Emerging Sciences   *Lahore, Pakistan• August 2022 - Present*
Bachelor of Science (Bsc) in Computer Science