



# Muhammad Anas

SOFTWARE ENGINEER | FAST '27

## CONTACT

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## LOCATION

📍 Faisalabad, Punjab, Pakistan

## LINKS

**in** [linkedin.com/in/muhammad-anas-b14b243a9](#)

**gh** [github.com/MuhammadAnas4774](#)

## TECHNICAL SKILLS

- C++ & Systems Programming
- Kotlin & Java (Android Dev)
- Python • Data Science
- NLP & Machine Learning
- PyTorch • NumPy
- Oracle DB • MySQL
- Data Structures & Algorithms
- Streamlit • Gradio
- Git & GitHub

## EDUCATION

### B.Sc. Software Engineering

FAST-NUCES | 2023–2027

CGPA: 2.99 (6th Semester)

### ICS – Computer Science

KIPS College | 2021–2023

Grade: 987/1100 (A+)

### Matriculation

Kamil Foundation School

Grade: 1098/1100 (A+)

## INTERESTS

- AI & Machine Learning
- Android Development
- Open-Source Projects
- Futsal & Cricket
- Badminton

## LANGUAGES

Urdu Native

English Professional

# Muhammad Anas

SOFTWARE ENGINEERING STUDENT • FAST NUCES '27

Kotlin & Java • C++ & Systems • Python • NLP & ML • Android Dev

Teaching Assistant

FAST-NUCES, Faisalabad

CGPA 2.99 | Sem 6

## ABOUT ME

Passionate Software Engineering student at FAST-NUCES (Class of 2027) with strong expertise in C++, systems programming, and data structures. Skilled in Kotlin and Java for Android development, building scalable data-driven solutions. Currently serving as a Teaching Assistant for database labs. Experienced in NLP, machine learning, and big-data analytics pipelines. Committed to solving complex real-world problems through clean, efficient, and impactful code.

## EXPERIENCE

### Teaching Assistant – Database Lab

Jan 2026 – Present

FAST-NUCES, Faisalabad • Contract / On-site • Under Sir Umer Zahoor

- Assisted in Oracle DB & MySQL lab sessions, guiding students through practicals and core database concepts.
- Evaluated and graded assignments under Sir Umer Zahoor, ensuring academic and technical standards.
- Mentored junior students on database design, query optimisation, and SQL best practices.

## PROJECTS

### Hybrid Semantic Retrieval & Intelligence System (HSRIS)

PyTorch

NumPy

NLP

GloVe

GPU

Gradio

- Built multi-stage NLP pipeline combining TF-IDF/n-gram sparse retrieval with dense GloVe semantic embeddings for automated customer-support ticket retrieval.
- Optimised for dual-GPU batch performance; deployed interactive Gradio dashboard for side-by-side keyword vs. semantic search comparison.

### Urban Environmental Intelligence Engine (UEIE-2025)

Python

PCA

Scikit-learn

Streamlit

OpenAQ

- Analysed hourly air-quality data from 100 global sensors; applied PCA to reduce six correlated environmental variables into interpretable pollution components.
- Modelled PM2.5 extreme-hazard events (99th percentile); built interactive Streamlit smart-city dashboard for actionable environmental insights.

### Arabic Prose Generator

NLP

Python

Morphology

Tokenisation

- Designed rule-based algorithms for structured Arabic prose generation addressing complex morphology, grammar rules, and word-formation patterns.
- Applied tokenisation, pattern recognition, and text construction for long-form coherent Arabic sentence generation.

### NYC Congestion Pricing Audit

Python

Dask

Parquet

Pandas

Streamlit

- Processed NYC TLC Yellow Taxi records detecting anomalies (ghost trips, unrealistic speeds); analysed congestion-zone compliance and surcharge collection.
- Built Streamlit dashboard for hourly demand patterns, revenue impact, and urban policy decision support.

### ANIMETER – Anime & Manga Tracking Platform

React Native

Node.js

Full-Stack

UI/UX

- Co-developing with Hareem Hamid: smart tracking, intelligent episode notifications, genre-DNA personalisation, and a futuristic UI/UX experience.