

## EDUCATION

**Ghulam Ishaq Khan Institute of Engineering Sciences and Technology**

Bachelor of Science in Computer Science

Anticipated 05/2024

**Relevant Courses:** Databases, Data Structures & Algorithms, Software Engineering, Object Oriented Programming, Operating Systems, Computer Communications & Networking, Artificial Intelligence, Functional Programming (Lisp/Scheme), Systems Programming.

## PROFESSIONAL EXPERIENCE

**AI/ML Project**

Topi, Pakistan

Artificial Intelligence Project | **Python, TensorFlow, Keras, CNN, OpenCV**

Apr 2023 – May 2023

- Implemented a Superresolution model, improving image resolution for Hyperspectral and RGB images, enhancing details by up to 8x.
- Managed and preprocessed the CAVE dataset, generating 2000+ smaller training and testing images.
- Engineered a dual-input CNN model with feature extraction & UpSampling layers, improving feature fusion and image reconstruction, that merged low spatial/high spectral and high spatial/low spectral images, achieving high-resolution outputs (64x64x31).

**Machine Learning**

Topi, Pakistan

Artificial Intelligence Project | **Python, TensorFlow, Keras, CNN, OpenCV**

Feb 2023 – Apr 2023

- Designed a robust CNN model with Conv2D, MaxPooling2D, BatchNormalization, and Dense layers, enhancing feature extraction.
- Classified 60,000 32x32 color images into one of 10 classes from the CIFAR-10 dataset.
- Executed comprehensive model performance evaluation resulting in a model accuracy of approximately 88%.

**Content Arcade**

Faisalabad, Pakistan

Flutter Developer Intern | **Flutter, Dart, FireBase**

Jun 2022 – Aug 2022

- Developed a Budgeting app from scratch within a 2-month timeframe, collaborating closely with a team of professionals.
- Enhanced app efficiency by implementing the Provider Pattern, leading to a 30% improvement in widget update times and responsiveness.
- Integrated FireBase Authentication for Signing Up and Logging in; this reduced user login issues by 20%.
- Leveraged NoSQL-based Firestore and Real-Time Databases to store user data, decreased data loading times by 10%.

**App Development**

Topi, Pakistan

Data-Base and Software Eng. Project | **Flutter, Dart, FireBase, Django, Python, PostgreSQL**

Feb 2022 – April 2022

- Streamlined an app using Flutter and Django, resulting in 30% faster data fetch and store times with PostgreSQL and Python.
- Integrated Google Maps successfully, enhancing user navigation experiences and increasing app utility and giving it a SUS Score of 90.
- Incorporated Firebase Cloud Messaging, facilitating efficient user communication and increasing engagement by 80%.

**Graphic Representation of Nodes**

Topi, Pakistan

Data Structures and Algorithms Project | **C++**

Nov 2021 – Dec 2021

- Built an application in C++ with SDL2 for visualizing nodes in an undirected graph, enhancing data analysis.
- Employed Prim's Algorithm for optimal path selection in graph scenarios, boosting computational efficiency.
- Incorporated Dijkstra's algorithm for shortest path determination, improving the tool's route optimization capabilities.

**Faisalabad Fabric Store**

Faisalabad, Pakistan

WordPress & SEO Expert | **WordPress, HTML, CSS, Java Script**

Mar 2020 – Aug 2020

- Revamped the user interface of the [website](#) through careful adjustments of JavaScript, resulting in a 35% improvement in load time.
- Utilized Google Keyword Planner and SEMRUSH to extract competitors' keywords, leading to a 30% improvement in the search ranking.
- Conducted backlink analysis of competitors and audited our backlinks using AHERFS, resulting in a 15% increase in high-quality backlinks.

**Game Development**

Faisalabad, Pakistan

Indie Project | **Unity3D, C#, PhotoShop**

Nov 2019 – Feb 2020

- Leveraged Unity3D and C# scripting to craft a 2D [mobile game](#), enhancing user engagement.
- Incorporated essential physics into the gameplay using the in-built functionality of the Unity3D engine.

## EXTRACURRICULARS

Introduction to DevOps – Coursera Certificate by IBM

Feb 2023

Web Application Technologies and Django – Coursera Certificate by University of Michigan

April 2023

GIKI Microsoft Students Club – Member

Jan 2022 – Nov 2022

GIKI Science Society – Tech and Liaison Head

Feb 2021 – Sept 2022

AIESEC - National Corporate Branding Head

Jul 2021 - Dec 2021

## SKILLS

**Languages:** Dart, C/C++, Python, C#, JavaScript, SQL.**Frameworks & Tools:** Flutter, Firebase, Django, AWS, PostgreSQL, Unity3D, Oracle.**AI/ML:** TensorFlow, Keras, CNN, OpenCV.