talhayounas0348@gmail.com +92 (333) 8543815

**Address** Havelian Abbottabad, KPK Pakistan

Objective

Passionate Computer Science major with a focus on AI and Data Science, seeking a challenging role to apply and expand my expertise in developing innovative solutions.

Education | Ghulam Ishaq Khan Institute of Engineering Sciences and Technology (GIKI)

Bachelors of Science in Computer Science

2020 - 2024

Topi, PK

CGPA: 3:3/4.00

**Experience** 

**Work ALT Ventures** Lahore, PK Developed a versatile chatbot with internet integration, email automation, and 01/06/2023 - 07/08/2023

document summarization. Collaborated on Al-driven features, optimized the Retrieval-Based Voice Conversion model, and integrated Roop for deepfake video generation. Demonstrated strong problem-solving, enhancing the quality of deepfake videos through RVC model optimization.

Lahore, PK **Mindstorm Studios** 

Designed and programmed a 3D maze-based tower defense game in Unity, focusing on procedural level generation and engaging player experiences.

01/06/2023 - 29/08/2023

**Project** 

## Final Year | NLP Powered Business Intelligence App

A user-friendly web application based on Natural Language Processing (NLP) simplifies data interaction for nontechnical users. The application utilizes an LLM to interpret user queries, transforming them into SQL for seamless data access, and generates visualizations, including charts, for easy comprehension. The platform not only facilitates efficient data access but also empowers users to customize and save these charts to personalized dashboards, promoting streamlined and efficient report generation.

# **Projects**

## Academic | Voice Cloning and Deepfake

Designed an innovative app for creative voice and visual transformations. Users can choose from fine-tuned RVC models of Pakistani celebrities to convert their recorded voice, synchronized seamlessly with images or videos using Wav2Lip lipsyncing. Taking personalization further, the app transforms a provided video by changing the speaker's face and voice into their chosen celebrity.

#### Anime Face generation through GANs

Created a project focused on Anime Face Generation using Generative Adversarial Networks (GANs). Employed advanced techniques to generate highly realistic and diverse anime faces through the innovative application of GAN technology.

## Hyperspectral Image Super-Resolution

Developed an advanced model for Hyperspectral Image Super-Resolution, combining spatiotemporal attention mechanisms and convolutional neural networks. Utilized channel and spatial attention, along with ResNet blocks, to enhance spatial resolution while preserving spectral information in low-resolution hyperspectral images, taking high-resolution RGB counterparts as input.

### **Procedurally Generated 3D Maze Game in Unity**

Designed an engaging Procedurally Generated 3D Maze Game in Unity with dynamic layouts for each level.

#### Social Media App

Built a social media app using Java, Firebase, and Android Studio, featuring user login, registration, posting, liking, commenting, and profile updating. Leveraged Firebase as the backend database for efficient data management.

### **LLM-Powered Chatbot**

Created a versatile chatbot with email management, Google Meet and Calendar integration for scheduling meetings, and Google Docs reading capabilities. The chatbot gives a summary of any email, can send an email, sets up meetings, and retrieves information from documents in Google Drive, enhancing user interaction and productivity.

## **AI-Enhanced Moon Images**

Developed a high-resolution moon image enhancement solution inspired by Samsung's AI. Utilized YOLO deep learning for moon detection and implemented a resolution enhancement model. Achieved visually improved outputs and created a user-friendly React Native camera app for seamless moon imaging.

# **Achievements**

Awards & - Deans Honor List

#### Skills

- Web Development ( MERN Stack, PHP, Flask )
- Deep Learning
- Mobile Development (React Native, Java)
- Databases ( PostgreSql, Mysql, Sqlite, Firebase, MongoDB )
- Natural Language Processing
- Web Scraping
- Devops (github actions, terraform, docker, AWS, GCP)