Usman Tahir Qureshi

616.334.9660 | <u>usman.nja.14@gmail.com</u> | Allendale, MI, United States https://www.linkedin.com/in/iusmanq/ | https://github.com/UsmanQT

EDUCATION

Master of Science in Applied Computer Science

Grand Valley State University, Grand Rapids, MI, United States

Aug 2022 – Dec 2023 GPA: 3.940/4.0

BS Computer Science Aug 2016 – Feb 2021

FAST National University of Computer and Emerging Sciences, Pakistan

GPA: 3.10/4.0

TECHNICAL SKILLS

Programming: JavaScript, Swift, C++, Python, Java

• Web Development: Node.js, Express, React.js, GraphQL, RESTFUL APIs, Python Flask, Ruby on Rails, PHP, jQuery,

Bootstrap, HTML5, CSS, MVC architecture

• Mobile Development: iOS, Swift UI, MVVM, XCode, Android Studio, React-Native, Flutter, Flutter Bloc, Flutter getX,

Database: Relational (Oracle SQL, SQL server), Non-Relational (MongoDB, Mongoose), Google Firebase

Tools (Platforms: Cit Doskor LangChain April LIV/LIX figms, Adoba VD, Notion, CMD torminal Streamlit

• Tools/Platforms: Git, Docker, LangChain, Anvil, UI/UX, figma, AdobeXD, Notion, CMD terminal, Streamlit

• Project Management: Agile, Scrum, SDLC, CI/CD

Technology: GCP Virtual Instances, Lambda functions, Large Language Models, Google Cloud Functions

ACADEMIC EXPERIENCE

Graduate Research Assistant - Grand Valley State University - Grand Rapids, MI, USA

Jan 2023 – Dec 2023

- Developed a conversational AI chatbot named 'AskLily' for the official GVSU Laker Mobile iOS app using Swift.
- The application has 1000 users in the United States and achieved 100% crash-free stability for the application.
- Investigated necessary fixes and updates with my team for the GVSU Laker Mobile iOS application, tested the updates using TestFlight and deployed them to the iOS AppStore.
- Active research on open-source large language models with LangChain framework to develop a mobile advisory solution that offers seamless integration with various applications.
- Developed an AI chat solution using Python, Retrieval Augmented Generation architecture, Large Language Models, and hosted the application as a web service.

PROFESSIONAL EXPERIENCE

Software Developer - DevStack - Lahore, Pakistan

May 2021 – July 2022

- Fixed bugs and issues on the Ok Tamam App (The application is a bridge between students anywhere in the world
 and universities in Turkey & Malaysia. Students were able to create their profiles and apply to different universities
 in Turkey & Malaysia).
- Developed and tested a Food Delivery App using Flutter (An E-commerce application where users can place orders using a credit card. The admin side of the app allowed the admin to maintain and categorize different food items).
- Developed an E-book reading app from scratch. The E-book reading app included chapter navigation and translation into English language and Tamil.
- Developed an attendance marking App. It was a barcode scanner app to mark the attendance of students and save the data in Excel).
- Fixed backend API bugs on the "no waiting" application that was developed using Flutter. The application assisted students at the universities in reserving their spots at the Gym, cafeteria, and Library.

ACADEMIC PROJECTS:

Al Advisory System – Master's Project [Python, RAG, LLMs, Docker, LangChain]:

Sept. 2023 – Dec. 2023

Intelligent web-based chatbot for GVSU Applied Computing Institute - Link to the Project "AI Advisory System"

- Utilized the power of Retrieval Augmented Generation (RAG) Architecture to develop an intelligent chat bot for GVSU Applied Computing Institute.
- The back end was implemented using python's natural language processing libraries and large language models from Hugging Face. The front end was a simple web interface powered by Python Streamlit.

Journal iOS Mobile App [iOS, Swift UI, Figma, GitHub, Firebase, TestFlight]

Sept. 2023 - Dec. 2023

An iOS application for creating journal entries - Link to the Project "iOS Journal App"

- Collaborated with my teammates to develop the application using Swift UI, Firebase, Figma, GitHub and TestFlight.
- The application lets users create and share journal entries with other users.
- Deployed and tested the application using TestFlight.

The AI Brainstormer [Node.js, Express, React.js, MongoDB, Python, YOLOv2]:

Sept. 2023 - Present

A web application for brainstorming - <u>Link to the Project "AI Brainstormer"</u>

- The AI Brainstormer is a web application that will allow team collaborators to draw objects on a shared whiteboard.
- The AI brainstormer will suggest ideas or words based on the objects drawn on the whiteboard. The main aim of the project is to increase team brainstorming productivity. The project's first module is under development.

Rent a Bike [React-Native, expo, Firebase]:

Jan. 2023 - May. 2023

Mobile Application for Renting Bicycles - Link to the Project "Rent a Bike"

- A bike rental service provider application developed for both the bike owners and the renter. Deployed the app on expo for testing purposes and successfully tested on 5 users.
- Developed using React-Native for IOS/Android devices and powered by Firebase and expo.

Audio Hub [Node.js, React.js, Express, MongoDB, GCP]:

Jan. 2023 - May. 2023

Web Application for Exploring and Playing Music - Link to the Project "AudioHub"

- Developed the website using React JS, NodeJS, express JS and backed powered by MongoDB.
- Deployed the website live on a virtual instance of Google Cloud Platform (GCP).

Elexia - Final Year Project [Unity, Android, C#, Firebase]:

Feb. 2020 - Feb. 2021

Computer-Based Intervention Game for Dyslexic Children - <u>Link to the Project "Elexia"</u>

• Collaborated with my supervisors to develop an android game using C# and unity gaming engine to enhance learning abilities of Dyslexic Children.