

# Muhammad Awwab Khan

+92 3422469246 | [mawwabkhank2006@gmail.com](mailto:mawwabkhank2006@gmail.com) | [linkedin.com/in/muhammad-awwab-khan](https://www.linkedin.com/in/muhammad-awwab-khan) | [github.com/M-Awwab-Khan](https://github.com/M-Awwab-Khan)

## EDUCATION

**NED University of Engineering and Technology**

*Bachelor of Software Engineering — CGPA: 3.909*

Karachi, PK

*Oct. 2023 – Jul 2027*

## EXPERIENCE

**Software Engineering Fellow**

Jul 2024 – Sep 2024

*Headstarter AI*

*New York, NY*

- Developed and deployed 5 AI projects in 5 weeks using React JS, Next.js, Firebase, and Vercel, integrating CI/CD and agile practices for iterative improvements.
- Created an interactive customer support agent with Next.js, integrating a custom RAG pipeline with OpenAI and Pinecone for dynamic responses based on company knowledge bases.
- Built a SaaS product with dynamic flashcards using Llama 3.1 LLM via Groq API and collaborated with a team to deliver scalable solutions.
- Developed an AI-powered search engine with Serper API and Mixtral LLM via Groq API, utilizing RAG to enhance search result relevance.
- Took part in 3 hackathons, developed applications for companies, scaled applications to 200+ users, iterated based on feedback, and participated in sessions with industry leaders from Google, Y Combinator, and others.

## PROJECTS

**Reception** | *Typescript, React, NextJs, Vad React, Voice Recognition, Tailwind CSS, API*

August 2024

- An innovative voice-based virtual receptionist designed to handle customer interactions and appointment scheduling with efficiency and professionalism.
- Confirms appointment by sending email to user.
- Responds in < 1s with real human like voice.

**LangSearch** | *Typescript, React, NextJs, Langchain, LLM, Tailwind CSS, API*

August 2024

- This AI-powered search engine leverages Groq, Mixtral, Langchain.JS, Brave Search, Serper API, and OpenAI to deliver accurate sources, answers, images, and videos in response to user queries with <1s latency.
- Chat like interface, with video player and image viewer functionality.

**MathScribe** | *PySide6, Qt, Gemini 1.5 Pro, Image Processing*

July 2024

- This innovative application lets you draw mathematical expressions with hand gestures, and an AI engine solves them instantly.

**Linguo** | *Javascript, Voice Activity Detection, NextJS, Tailwind CSS, TTS, STT*

July 2024

- Voice based language learning assistant powered by lightning fast Groq LLM inference and Onnx runtime for real-time voice detection.

**Smart Teaching Assistant** | *Qt, QML, OpenCV, C++, Figma*

June 2024

- Helps teachers manage classes and quizzes, analyze student responses with Optical Mark Recognition (OMR)
- Conducts virtual whiteboard sessions by using hand gestures.
- Scans OMR sheet using mobile camera, saving results directly to database.

**Personalized Book Recommender** | *Python, Pandas, Numpy, Scikit-Learn*

April 2024

- Leveraging NLP techniques, this application suggests books tailored to user preferences by creating a profile based on initial ratings and refining recommendations in real-time as more ratings are provided.

## SKILLS AND ADDITIONAL INFORMATION

**Programming Languages:** Python, C/C++, JavaScript/TypeScript, HTML/CSS

**Frameworks:** React, Node.js, Flask, NextJs, WordPress, Shaden UI, Tailwind CSS, FastAPI, Qt

**Developer Tools:** Git, Google Cloud Platform, VS Code, Visual Studio, PyCharm, Vercel CI/CD

**Libraries:** Pandas, Numpy, Matplotlib, PyTorch, Tensorflow, Streamlit, Keras

**AI:** Generative AI, LLMs, RAG, AI Agents, Deep Learning, Machine Learning

**Creative:** Designing, Story Telling, Whiteboard Teaching, Leadership, Teamwork, Delegation, Agile