# KASHAF IRFAN

*Full Stack Developer | Generative AI Engineer*

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## SUMMARY

As a final-year BSCS student specializing in Generative AI, Web Development, and GIS Analytics, I am passionate about creating intelligent, secure, and scalable software solutions. With over a year of hands-on experience in AI driven applications, Data Science, and full-stack web development, I have successfully integrated advanced machine learning models into practical applications, developed responsive web applications with Next.js, professionally implemented RESTful APIs, and ensured secure software design to mitigate cyber threats.

## EDUCATION

**FAST National University of Computer and Emerging Sciences** ***Graduation: Jun, 2025***

*Bachelor of Science in Computer Science*

***COURSES:*** *Web Development |Generative AI |Artificial Intelligence | Remote Sensing & GIS |Software Testing | Information Security | Operating Systems | Digital Image Processing*

## TECHNICAL SKILLS

**Languages**: JavaScript, C++, Python, SQL

**Developer Tools**: Git, GitHub, Oracle, VS Code, CursorAI, Eclipse, Bash Scripting, ArcGIS, QGIS

**Technologies & Frameworks:** MERN Stack (MongoDB, Express.js, React.js, Node.js), FastAPI, Streamlit, Tailwind CSS, Material UI

**AI Models & Integrations:** Skill Assessment Model, LSTM Text Generator, OpenAI Whisper (Streamlit), REST APIs

## PROJECTS

❖ **Health Nexus** *Final Year Project*
*Next.js*, *PostgreSQL*, *JWT*, *Python*, *AI*

- Co-developing an AI-powered web platform to help users assess their skills and receive personalized learning paths for career growth.
- Designed and implemented a responsive frontend using React.js and Tailwind CSS, and a scalable backend with Node.js and MongoDB.
- Integrated machine learning models to evaluate user profiles and generate data-driven learning recommendations.

❖ **Clinical Diagnostic System (RAG-based)** *Generative AI*
*LangChain*, *OpenAI*, *Streamlit*, *Python*, *MIMIC-IV-Ext*

- Developed a Retrieval-Augmented Generation (RAG) pipeline to answer medical queries using real-world clinical notes from the MIMIC-IV-Ext dataset.
- Built a Streamlit-based web interface for real-time querying, visualization, and user interaction.
- Preprocessed and filtered large clinical datasets to improve retrieval relevance and model output accuracy.

❖ **Developed a Remote Access Trojan (RAT)** ` *Information Security*
*C*, *Python(sockets)*, *Java*

- Implemented advanced cybersecurity measures to detect, analyze, and neutralize Remote Access Trojans, enhancing system security and threat mitigation capabilities.

❖ **Math Meme Repair** *Generative AI*
*Deep Learning*, *Colab*, *Streamlit*

- Developed a model that identifies errors in viral math memes, generates clear educational explanations, and assigns humorous "error ratings," enhancing both engagement.