

Muhammad Hassan Khalid

hassank8125@gmail.com | +92 318 006 5385 | [GitHub](#) | [LinkedIn](#) | Karachi, Pakistan

PROFESSIONAL SUMMARY

Computer Engineering student at GIKI who thrives at the intersection of technical precision and digital execution. Specializes in full-stack web and mobile application development, bridging hardware and software to build production-ready digital systems end to end. Follows a scope-prototype-refine-ship workflow, drawing on a filmmaker's instinct to cut what doesn't earn its place, and enjoys taking impactful, user-facing products from an idea to a working build.

EDUCATION

Ghulam Ishaq Khan Institute (GIKI), Topi — BS Computer Engineering 2023 – 2027
Punjab College, Kot Addu — FSc Pre-Engineering (100% Scholarship) 2021 – 2023

TECHNICAL SKILLS

Languages JavaScript (ES6+), Python, C, C++, MATLAB, Assembly (8051, RISC-V)
Web / Full-Stack React.js, HTML5, CSS3, Flask, Firebase, REST APIs, Vercel
Embedded / HW ESP32, Arduino, 8051, Verilog (HDL), signal processing (DSP)
Tools Git, Proteus, Keil uVision, MATLAB/Simulink, DaVinci Resolve, Premiere Pro

PROFESSIONAL EXPERIENCE

Decode Labs — Generative AI Intern July 2026 – Present
• Building generative-AI features — prompt engineering, LLM integration, and shipping AI capabilities into production applications.

ENUMS — Full-Stack Developer Intern Jul 2026 – Present
• Building full-stack web features end to end — React front-ends wired to Flask/REST back-end services.

FlyRank AI — Machine Learning Intern Jul 2026 – Present
• Developing and evaluating machine-learning models and data pipelines that power the product's AI features.

NCL, NED University — AI Intern June 2024 - Aug 2024
• Gained hands-on experience in AI and embedded-systems research, contributing to microcontroller-based prototypes alongside the lab team.

Media Club, GIKI — Vice President Sep 2023 – Present
• Lead internal operations, team coordination, and end-to-end production for the club's short films and campus-scale media campaigns.

PROJECTS

NOVA-16 Enhanced ISA Emulator Python · Flask · Gemini API
• Browser-based emulator for a custom 16-bit RISC architecture with a pipeline visualizer, cache simulator, hazard detection, and an AI-powered assembly code generator.

JobConnect — Full-Stack Recruitment Platform React · Firebase
• Serverless recruitment platform connecting job seekers and employers through real-time data management and automated communication workflows.

Smart IoT Kitchen System ESP32 · Sensors
• Designed an ESP32 system monitoring gas, temperature, and motion to trigger safety alerts and automate appliances via a control interface.

Event Management System — Web-Based Booking Platform JavaScript · Flask
• Built an event management platform with live seat selection, ticket checkout, and booking confirmation, handling concurrent reservations through server-side validation.

Adaptive Radar Signal Processing MATLAB · DSP
• Implemented adaptive filtering algorithms in MATLAB to suppress clutter and noise from radar returns, improving target detection in low signal-to-noise conditions.

Also: Exoplanet Signal Detection (MATLAB DSP), Instant Messaging (Python TCP sockets, multithreading), PCA engine from scratch (Python), Online Store Management & Virtual Pet Adoption (C++, DSA/OOP), Metal Detector (Electronics).

CERTIFICATIONS & ACHIEVEMENTS

- AI Fluency: Framework & Foundations · Claude 101 · Claude Code 101 — Anthropic (2026)
- IC Design Summer School — DreamBig (2025)
- 100% Academic Scholarship — Punjab College · Ranked 2nd in Matriculation — The City School
- Created 3 short films (AKS, INIKAAS, BARZAKH) · Badminton Team Captain (school level)