

MALIK SHAHZAIB KHAN

Islamabad, Pakistan, 44000 – Portfolio

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EDUCATION

National University of Science and Technology <i>Bachelor of Engineering, Software Engineering (CGPA: 3.4/4.0)</i>	Islamabad, Pakistan Sep 2022 - Expected June 2026
Coursework: Machine Learning, Web Engineering, Cloud Computing, Computer Networks, Operating Systems, Software Construction, Database Management Systems (DBMS), Data Structures and Algorithms	

EXPERIENCE

Globalink Research Intern (Incoming) <i>Mitacs Globalink Research Internship</i>	Expected June 2026 – Sep 2026 Winnipeg, Canada
• Selected for a competitive international fellowship to work on the project titled data augmentation and deep learning for mechanical damage classification in seeds.	
Software Engineer <i>Markaz Technologies (YC W22)</i>	Sep 2025 – Dec 2025 Islamabad, Pakistan
• Developed Locatr, an LLM-powered API to resolve unstructured address data for the Markaz marketplace.	
• Migrated AWS Lambda functions GCP cloud run, implementing a CDN layer that reduced API latency by 4x.	
• Engineered an image optimization pipeline converting Alibaba-hosted assets to WebP (reducing size by 40%), migrating storage to Google Cloud (GCP) buckets served via a custom domain CDN.	
Founding Engineer <i>Elegant Intelligence</i>	May 2025 – Present Islamabad, Pakistan
• Leading the development of an MVP that automates legal contract generation and online dispute resolution.	
• Supervising the technical execution and product strategy for an MVP, meeting with industry experts and researching cutting-edge technologies to enhance features.	
Undergraduate Researcher <i>Machine Vision & Intelligent Systems Lab</i>	Dec 2024 – Present Islamabad, Pakistan
• Conducting literature review of state-of-the-art models in precision agriculture, exploring deep learning approaches for LiDAR, hyperspectral, and RGB imagery.	
• Working with drone hardware integration: 3D printing components, mounting sensors (LiDAR, cameras), and deploying on NVIDIA Jetson Orin Nano for data collection.	
Machine Learning Research Assistant <i>TUKL-NUST R&D Center</i>	Jun 2023 – Jan 2024 Islamabad, Pakistan
• Trained deep learning models on the NMT scalp EEG dataset to classify between normal and abnormal EEG signals.	
• Developed a full-stack application (Vue.js, Flask, MySQL) to deploy the trained model for user interface.	

SKILLS

Software Engineering: Python, JavaScript, C/C++, SQL, Next.js, FastAPI, Node.js, Flask, Django
AI & Machine Learning: LangChain, RAGs, ChromaDB, PyTorch, TensorFlow, Hugging Face, Vertex AI
Cloud & Infrastructure: GCP, AWS, Docker, Git, CI/CD, Linux, Postman, Vercel, Groq, Streamlit

PROJECTS

LiDAR-Based Plant Phenotyping for Precision Agriculture (FYP)	
• Developing a comprehensive and non-destructive pipeline for plant phenotyping using LiDAR technology from data collection to extracting meaningful insights.	

PUBLICATION

AgriFormer: Advancing 3D LiDAR-based Biomass Prediction through Hierarchical Feature Learning

Accepted and Presented at AICCSA 2025

- Proposed a hierarchical Transformer-based model for processing 3D LiDAR point clouds to accurately estimate agricultural biomass, outperforming baseline models.

CERTIFICATIONS

Specializations: Deep Learning Specialization (July 2023), Machine Learning Specialization (June 2023) – DeepLearning.ai
Professional Certificate: IBM Full Stack Software Developer (Dec 2022) – IBM, Coursera