

Abu Bakar

Software Engineer

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Software Engineer and Computer Science student with hands-on experience in building **web applications** and software systems. Skilled in **Python**, **Flask**, and the **MERN stack**, with a good understanding of software design, **UML**, and **SRS** documentation. Experienced in adding **machine learning** features to real-world applications, with knowledge of **NLP**, **data analysis**, and **cloud deployment**. Able to develop reliable, easy-to-maintain solutions and complete projects from start to finish.

EDUCATION

Bachelor of Science in Computer Science

Namal University Mianwali

10/2022 - 07/2026

FYP: SudhaarAI - Generative Code Assistant and Context-Based Code Optimizer

Relevant Courses: Artificial Intelligence, Machine Learning, Natural Language Processing, Web Application Development

PROJECTS

SudhaarAI (FYP, Namal University) [🌐 Live](#)

– Full-stack AI platform that analyzes and optimizes Python code using a **RAG pipeline** (**Flask** + **Next.js** + **ChromaDB**) with multi-provider **LLM** support and **JWT-based** authentication via Clerk.

Cotton Seed Classifier (NAAC, Namal University)

– Web and **Flutter** mobile app using a **ResNet50** CNN model to classify 7 cotton seed varieties with real-time **batch prediction** visualization via **Chart.js**.

BarberAI (AI Seekho 2026) [🌐 GitHub](#) | [🌐 Live](#)

– AI-powered barber booking platform using **Gemini 2.5 Flash** vision to analyze face shape from uploaded photos and generate personalized hairstyle recommendations, deployed on **Google Cloud Run**.

Ustad (GDG Pakistan) [🌐 GitHub](#) | [🌐 Live](#)

– AI-powered tool that converts **Google Cloud Skills Boost** lab instructions into executable bash scripts using **Gemini**, with progress tracking and **Markdown** export built on **Next.js**, **Clerk**, and **PostgreSQL** via **Prisma**.

MyNamalGPA [🌐 GitHub](#) | [🌐 Live](#)

– Secure GPA/CGPA calculator for Namal University students built with **React**, **TypeScript**, and **shadcn/ui**, featuring HEC-compliant grading, course repeat handling, **PDF** export, and enterprise-grade **XSS/CSP** protections.

SKILLS

Python C++ SQL JavaScript HTML CSS

React Nextjs Numpy Pandas Matplotlib

Scikitlearn PyTorch TensorFlow Flask FastAPI

MySQL Neo4j MongoDB Azure Database

GitHub Git Microsoft Office Microsoft Azure

CERTIFICATIONS

AI For Everyone

DeepLearning.AI, Mar. 2025

Machine Learning Fellowship

Bytewise Limited, Sep. 2024

AI Fundamentals

DataCamp, Aug. 2024

Programming For Everybody (Python)

University of Michigan, Jan. 2023

ACHIEVEMENTS

2nd Runner-Up, Agri Fusion, 2025

*Developed a **cotton seed classification** project.*

*Achieved **3rd place** out of 35 final year projects as 3rd year student.*

Head of Skill Development Wing

NSSI Society Namal

Beta Microsoft Learn Student Ambassador

2024 - Present

Hacktoberfest 2024

*Completed with **accepted PRs***

Google Cloud AI Study Jam (Season 6)

31 badges completed

Google Cloud AI Seekho 2026

*Completed AI tracks, earned skill badges, and built **BarberAI** using Google AI Studio.*