

Muhammad Rafay Hassan Bukhari

CS Student | AI / ML | Full-Stack Web | Open to Internship

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ABOUT ME

5th-semester CS student at COMSATS University Lahore who enjoys building things that actually work — ML pipelines, REST APIs, and full-stack web apps. I pick up new tools quickly, ask the right questions, and care about understanding problems deeply before jumping to solutions. I am not looking to just observe — I want to contribute from day one, make mistakes, learn from engineers with more experience, and grow fast inside a real product team.

TECHNICAL SKILLS

Languages Python . JavaScript . Java . C++ . SQL . HTML . CSS

ML / AI scikit-learn . pandas . NumPy . HuggingFace Transformers . DistilBERT . PyTorch . NLP . Logistic Regression . Decision Trees . SVM . K-Means . Feature Engineering

Web & DB Node.js . Express.js . MongoDB . REST APIs . EJS . Bootstrap . jQuery . SQL . Window Functions . CTEs . Data Warehousing

Tools Git . GitHub . VS Code . Figma . n8n (Workflow Automation) . WordPress

EDUCATION

B.S. Computer Science — COMSATS University Islamabad, Lahore Campus | 2024 - Present (5th Semester)

Key subjects: Machine Learning . Advanced Databases . Operating Systems . Web Technologies . HCI . Linear Algebra

F.Sc. Pre-Medical — Punjab College, Lahore | 2021 - 2023

Matriculation (Science) — Dar-e-Arqam Schools | Completed 2021

PROJECTS

Agentic Fake News Detection System [Python](#) . [PyTorch](#) . [HuggingFace](#) . [DistilBERT](#) . [NLP](#) [link](#)

- End-to-end NLP pipeline with a fine-tuned DistilBERT classifier and a three-agent architecture (semantic analysis, linguistic pattern recognition, conflict resolution). Achieved 96% accuracy and F1 > 0.95 on 20,000+ news articles.

Heart Disease Prediction System [Python](#) . [scikit-learn](#) . [pandas](#) . [NumPy](#) . [Matplotlib](#) [link](#)

- Full supervised ML pipeline: data cleaning, EDA, feature engineering, scaling, model comparison (Logistic Regression vs Decision Tree), ROC curve and confusion matrix evaluation.

AI Calling Agent — Full-Stack Web App [Node.js](#) . [Express.js](#) . [MongoDB](#) . [EJS](#) . [Bootstrap](#) [link](#)

- Multi-page responsive SaaS web app with MVC backend, dynamic routing, and MongoDB data layer. Real-time Sales Dashboard using aggregation pipelines and jQuery polling.

Mood-Based Generative Art Machine [Vanilla JS](#) . [SVG](#) . [CSS](#) — [zero dependencies](#) [link](#)

- Six mood-driven SVG rendering algorithms in pure JavaScript — no frameworks, no build step. Strong DOM manipulation fundamentals and creative problem solving.

Match-Making System [C++](#) . [STL](#) . [Data Structures & Algorithms](#) [link](#)

- Console-based profile matching app with a custom compatibility scoring algorithm using STL containers: vector, queue, stack, unordered_map, and set..

Smart Campus App [Figma](#) — [Mobile + Web UI/UX Design](#) [link](#)

- Complete multi-screen mobile and web interface for a campus management system — navigation flows, component system, and responsive layout designed from scratch.

CERTIFICATIONS & INTERESTS

WordPress Website Development (IT Hut, 2022) . **Digital Marketing** (IT Hut, 2023-24)

Interests: Machine Learning . NLP . Agentic AI Systems . LLM-Powered Applications . Prompt Engineering . Full-Stack Development . Workflow Automation . Open Source Contribution