

Muhammad Ali Aamir

Data Science & AI Student | Full-Stack Developer | BS Data Science @FAST-NUCES

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[LinkedIn](#) | [Portfolio](#) | [GitHub](#) | Lahore, Pakistan



PROFESSIONAL SUMMARY

Data Science student at FAST-NUCES Lahore specializing in Artificial Intelligence and Machine Learning. My work sits at the intersection of data-driven intelligence and scalable software architecture — developing ML models ranging from predictive analytics to computer vision, and building the full-stack systems to deploy them in production. As the founder of WebCraft, I architect end-to-end web solutions that bridge complex data models with performant, user-facing interfaces. Driven by deep analytical thinking and high-level technical execution.

TECHNICAL SKILLS

Languages: Python, C++, C, JavaScript, SQL, Assembly Language (iAPX8088)

AI / ML: Machine Learning, Deep Learning, Neural Networks, Computer Vision, Model Training & Deployment, scikit-learn, TensorFlow, Keras, Pandas, NumPy, OpenCV, YOLOv8

Data Science: Data Engineering, SQL, Predictive Analytics, Feature Engineering, Data Visualization, Streamlit

Web & Backend: React.js, Node.js, Express.js, Flask, Next.js, Tailwind CSS, HTML5, CSS3, REST APIs, Gmail SMTP, Serverless (Vercel)

Databases: MSSQL, Database Design, Database Systems, Azure

Tools & Platforms: Git, GitHub, VS Code, Jupyter Notebook, DOSBox, NASM, AWS, Google Cloud, Vercel

Mathematics: Linear Algebra, Multi-Variable Calculus, Discrete Mathematics, Statistics

PROJECTS

TravelBuddy – AI-Powered Travel Platform

Technologies: ReactJS, NodeJS, Database Systems, AI/ML

A full-stack web application that revolutionizes how people plan and experience travel by combining smart AI-driven trip planning with genuine social connections and community features.

- Buddy Matching system to connect travelers who share similar travel styles and goals
- AI Itinerary Generator producing personalized day-by-day travel plans using ML models
- Vlogger & Social Hub for sharing journeys and engaging with a live travel community
- Expense Sharing module with seamless group cost management across multiple currencies
- Hotel & Restaurant Reviews with community-driven ratings and cost breakdowns
- Live Currency Converter, Best Routes & Transport Options, and Emergency Assistance tools
- Reviews & Trust Scores reputation system ensuring transparency across the platform

Criclytics – Intelligent Cricket Analytics Platform

Technologies: Python, Machine Learning, HTML, CSS, JavaScript

Transforms historical match data into context-aware win probabilities and interpretable ML insights for players, teams, and venues — democratizing professional-grade cricket analytics.

- Context-aware ML models accounting for venue, opposition, pitch conditions, and player form
- Player performance prediction, team win probability calculator, and head-to-head analysis
- Efficient data pipeline processing thousands of historical matches with custom feature engineering
- Interactive web interface for real-time probability updates as matches progress

GitHub: <https://github.com/aliamirchoudhary/Criclytics.git> | Live: <https://criclytics.aliamirchoudhary.workers.dev/>

Fashion Image Classifier – CNN & Random Forest

Technologies: Python, TensorFlow, Keras, scikit-learn, Streamlit, OpenCV, NumPy, Pandas

Clothing image classifier predicting 8 fashion categories using dual model architecture: CNN achieving 92.25%

accuracy and Random Forest achieving 87.56% accuracy.

- Custom CNN architecture with transfer learning optimized for fashion image recognition
- Streamlit web interface for real-time image upload, prediction, and model comparison dashboard
- Data augmentation and stratified sampling to handle class imbalance effectively
- Applicable to e-commerce product categorization, recommendation systems, and visual search

GitHub: <https://github.com/aliamirchoudhary/Fashion-Image-Classifier.git>

WebCraft – Full-Stack Freelance Platform

Technologies: HTML, CSS, JavaScript, Node.js, Gmail SMTP API, Vercel

Professional freelance web development portfolio with animated UI, functional inquiry forms with real email delivery via Gmail SMTP, and serverless deployment. Achieves 95+ Lighthouse score and sub-2s load times.

- Serverless Node.js functions for form processing with OAuth2-secured Gmail SMTP integration
- CI/CD pipeline with automatic deployments and responsive mobile-first design
- SEO-optimized semantic HTML; served as a lead generation platform securing multiple client projects

GitHub: <https://github.com/aliamirchoudhary/webcraft.git> | Live: <https://webcraft-dev.vercel.app/>

Solar Panel System Predictor

Technologies: C++, File I/O

Console-based solar energy system predictor estimating optimal panel configurations (types, inverters, batteries, wiring) based on house area and energy consumption inputs.

- Custom algorithms matching energy demand with panel output and battery storage requirements
- Dynamic cost calculator factoring in component prices and regional variations
- User-friendly console interface providing real-time configuration and cost forecasts

GitHub: <https://github.com/aliamirchoudhary/Solar-Panel-System-Predictor.git>

Flappy Bird & Bubble Shooter – 16-bit Assembly Games

Technologies: Assembly Language (iAPX8088), VGA Graphics, NASM, DOSBox

Two fully functional arcade games written entirely in 16-bit x86 assembly language for iAPX8088 processors, demonstrating low-level programming mastery.

- Physics-based gravity simulation using fixed-point arithmetic without a floating-point unit
- Real-time graphics rendering via direct VGA memory manipulation (Mode 13h, 320x200)
- Custom collision detection, pseudo-random number generation, and interrupt-driven keyboard input
- 1000+ and 800+ lines of pure assembly code respectively; developed with NASM and DOSBox

GitHub: <https://github.com/aliamirchoudhary/Flappy-Bird---IAPX8088-Assembly-Game.git>

EXPERIENCE

Founder & Lead Developer | WebCraft

2024 – Present | Lahore, Pakistan (Remote / Freelance)

Live: <https://webcraft-dev.vercel.app/>

- Founded and operate WebCraft, a professional digital brand delivering high-performance full-stack web solutions for service-oriented businesses
- Architect complete FLASK/MERN/MSSQL systems from requirements through deployment on AWS, Hugging Face, Render and Vercel
- Deliver Figma-to-React pixel-perfect implementations; 95+ Lighthouse performance scores achieved
- Manage end-to-end client relationships, project scoping, and delivery on Fiverr and direct channels

EDUCATION

BS Data Science

FAST-NUCES, Lahore | August 2024 – June 2028

Relevant Coursework: Data Structures & Algorithms, Machine Learning, Database Systems, Linear Algebra, Multi-Variable Calculus, Discrete Mathematics, OOP, Operating Systems, Computer Organization & Assembly Language, Introduction to Data Science

FSc. Pre-Engineering

Self-Study & Online Resources | 2023 – 2024

FSc. Pre-Medical

Oxbridge College, Rahim Yar Khan | 2021 – 2023

SELF-DIRECTED LEARNING

Full Stack Web Development (2023–2024): HTML5, CSS3, JavaScript, React.js, Tailwind CSS, DOM Manipulation, AI Prompting — acquired through structured self-study and online resources alongside formal education.

LANGUAGES

English (Fluent) | Urdu (Native) | Punjabi (Native)