

SYED MUSTAFA HASSAN

Machine Learning Engineer | AI Developer | Deep Learning | NLP | Python

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PROFESSIONAL SUMMARY

Passionate ML/AI developer (CGPA 3.68/4.0, UMT) with strong Python proficiency and 6 hands-on ML projects spanning classification, regression, NLP, and recommendation systems. IBM-certified in Machine Learning with Python. Experienced with scikit-learn, NumPy, Pandas, neural networks, deep learning, and agentic AI. Completed professional software engineering internship and actively peer tutoring in CS fundamentals. Seeking AI/ML internship opportunities to contribute to real-world intelligent systems.

TECHNICAL SKILLS

ML & Algorithms: Supervised/Unsupervised Learning · Classification · Regression · Decision Trees · Logistic Regression · Linear Regression · KNN · Naive Bayes · SVM · Recommendation Systems · Clustering

Deep Learning & NLP: Neural Networks · Deep Learning · CNNs · NLP · TF-IDF · Text Classification · Feature Extraction · Agentic AI · LLMs · Prompt Engineering · Speech Recognition · Generative AI

Python & Libraries: Python · scikit-learn · NumPy · Pandas · Matplotlib · Seaborn · Jupyter Notebook · TensorFlow (Basic) · Data Preprocessing · Feature Engineering · EDA · Model Evaluation

Tools & Dev: Git · GitHub · SQL · MySQL · JSON · REST APIs · OOP · Algorithm Design · JavaScript · C++ · HTML · CSS · Agile · Documentation

MACHINE LEARNING PROJECTS

- Breast Cancer Detection — SVM & Logistic Regression | Wisconsin Dataset**2026
 - Binary classifier using SVM, Logistic Regression & Decision Trees with full preprocessing pipeline, cross-validation, and precision/recall optimization to minimize false negatives in medical predictions.
- House Price Predictor — Linear Regression & Random Forest**2026
 - Regression model predicting property prices with feature engineering, correlation analysis & hyperparameter tuning — evaluated using RMSE and R² metrics.
- Email Spam Classifier — Naive Bayes & TF-IDF NLP Pipeline**2026
 - NLP spam classifier using TF-IDF vectorization, tokenization & stopword removal — achieving strong precision/recall on held-out test data.
- Movie Recommendation System — Collaborative Filtering & Cosine Similarity**2026
 - Content-based & collaborative filtering system using cosine similarity and matrix factorization — validated against test user preferences demonstrating personalization skills.
- Python Voice Assistant — Agentic AI, NLP & API Integration**2025
 - AI-powered voice assistant integrating NLP, speech recognition & multi-service APIs — demonstrating agentic workflow design and real-world Python automation.

EXPERIENCE

- Peer Tutor — University of Management and Technology (UMT)**Nov 2025 – Present
Lahore, Pakistan
 - Mentor 10+ students in Programming Fundamentals, OOP & DSA — reinforcing algorithmic thinking foundational to ML development; produce structured technical documentation.
- Software Engineering Intern — CodeAlpha**Aug 2025 – Sep 2025
Remote | Full-Time
 - Delivered end-to-end Python/C++ software projects with API integration & GitHub version control in a professional remote environment.

EDUCATION

- BS Computer Science — University of Management and Technology (UMT), Lahore**Oct 2024 – Jul 2028
CGPA: 3.68 / 4.0 | Activities: UMT ACM Student Chapter · Model United Nations · UMT Tecverse

CERTIFICATIONS

IBM — Machine Learning with Python | Meta — Programming with Python | Meta — Back-End Development | LinkedIn — Deep Learning: Getting Started | LinkedIn — AI Foundations: Neural Networks | LinkedIn — Deep Learning with Python: CNNs | LinkedIn — Python for Automation | Educative — ML with NumPy, Pandas & scikit-learn