

Khadija Nadeem

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Portfolio — GitHub — LinkedIn

PROFESSIONAL SUMMARY

Computer Science student at Penn State with hands-on experience in deploying ML models and LLM-powered applications. Built high-impact projects in recommendation systems, fraud detection, NLP, and stock forecasting.

TECHNICAL SKILLS

Languages: Python, JavaScript, SQL, HTML/CSS **Libraries:** scikit-learn, TensorFlow, Keras, XGBoost, OpenCV, pandas, NumPy

Frameworks & Tools: Hugging Face Transformers, Ollama, Gradio, PDFMiner, LangChain

Concepts: Machine Learning, Deep Learning, LLMs, CNN, RNN, Embeddings, Time Series Forecasting

PROJECTS

Semantic Book Recommender

Python, Gradio, Hugging Face

- Developed a Gradio-based semantic recommender that uses LLM embeddings from Hugging Face to suggest books based on user-provided descriptions.

GitHub: BookRecommender

Resume Editor with DeepSeek LLM

Python, Gradio, Ollama, PDF/Text Parsing

- Created a Gradio app that uses DeepSeek LLM via Ollama to analyze resumes/job descriptions and generate tailored improvement suggestions with export to PDF and text.

GitHub: ResumeEditorLLM

Credit Card Fraud Detection

Python, Random Forest, SMOTE, SHAP

- Built an ML pipeline for imbalanced data using SMOTE and Random Forest, achieving 98% precision and 88% F1-score, with SHAP explainability.

GitHub: CreditCardFraudDetection

Handwritten Digit Recognition

Python, TensorFlow, CNN

- Achieved 97% validation accuracy by training a CNN on 42k+ images with data augmentation, early stopping, and evaluation via confusion matrix.

GitHub: HandWrittenDigitRecognition

Apple Stock Trend Prediction

Python, TensorFlow, LSTM

- Forecasted 3-day AAPL stock trends with an LSTM model using a full pipeline: preprocessing, time windowing, tuning, and trend visualization.

GitHub: StockPrediction

EXPERIENCE

Software Intern, GCS Pvt. Ltd., Karachi

Summer 2025

- Built classification models (Random Forest, XGBoost) for client risk analysis; improved F1-score by 15%.
- Reduced pipeline runtime by 30% using batching and optimized feature selection.
- Collaborated with 6 engineers to integrate models into reporting dashboards.

Grader, Penn State

Spring 2024

- Evaluated assignments and exams for Calculus I and Elementary Statistics.
- Graded work for 100+ students and provided timely, consistent feedback.

EDUCATION

Pennsylvania State University, University Park

Expected May 2026

B.S. Computer Science — Dean's List

Relevant Coursework: OOP, Python, JavaScript, Machine Learning, Discrete Math, Digital Systems

Nixor College, Karachi

A-Levels: Mathematics, Physics, Chemistry

PUBLICATIONS

"Going further and farther with AI" — Dawn News

July 2025

Explored global AI trends and Pakistan's potential in the generative AI wave.

<https://www.dawn.com/news/1926244>

LEADERSHIP & VOLUNTEERING

Events Director (Elected), PSA University Park

Starting Aug 2025

Vice President, PSA Harrisburg

Nov 2024 – May 2025

Flood Relief Volunteer, Sindh Police

Sep 2022

Volunteer, MBAKH, Nixor College

Jun 2021 – Jul 2023