Mohamad Numan Alali

Certified in Generative AI & AI Ethics - Applied AI & ML - RAG & Neural Networks

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Professional Summary

Computer Science student with a strong focus on applied artificial intelligence and machine learning. Experienced in developing retrieval-augmented generation (RAG) pipelines, neural networks, and data-driven AI applications, including educational AI tools. Particularly interested in scientific computing, research-oriented engineering, and the responsible application of AI in complex technical environments.

Education

United Arab Emirates University — Al Ain, UAE
Bachelor of Science in Computer Science, GPA 3.94 — *Fall 2023 | Expected Fall 2027*
- Relevant Coursework: Machine Learning, Algorithms, Data Structures, Software Engineering, Database Systems, Human Computer Interaction, Probability and Statistics

Experience

AI Instructor — Jul 2025 – Present
Sheikh Mohammed bin Khalid Al Nahyan Center — *Al Ain, UAE*
- Taught students ages 12–15 foundational AI concepts and ethics
- Designed simplified and interactive educational material
- Strengthened student engagement through hands-on demonstrations

Python Community Co Lead, Cybersecurity Club — Apr 2025 – Present
Abu Dhabi University - Al Ain Campus — *Al Ain, UAE*
- Led workshops on Python, machine learning, and AI fundamentals
- Mentored students on debugging, project planning, and technical development
- Created hands-on educational content and learning sequences

Projects

Pneumonia Detection from Chest X-Ray Images | PyTorch, CNNs, Gradio — Jan 2026
- Developed an end-to-end deep learning pipeline for pneumonia detection from pediatric chest X-ray images
- Designed and trained a custom CNN with data augmentation, batch normalization, dropout, and learning rate scheduling
- Evaluated model performance using accuracy, precision, recall, F1-score, and confusion matrix on a held-out test set
- Deployed the trained model via a Gradio web interface for real-time image inference

Resume Helper (Jake Ryan Template) | Custom GPT, LaTeX, ATS Optimization — Jan 2026
- Developed a custom GPT system for generating ATS-friendly technical resumes using the Jake Ryan LaTeX template
- Implemented structured data collection and resume parsing to extract key experience and identify missing details
- Automated bullet rewriting using an impact-driven framework with integrated role-specific keywords
- Produced Overleaf-ready LaTeX source files and machine-readable PDFs while preserving template integrity

Neural Network From Scratch | Python, NumPy — Jan 2026
- Built a handwritten digit recognition neural network from scratch using Python and NumPy
- Implemented forward propagation, backpropagation, and gradient descent with matrix operations
- Applied ReLU and Softmax activations with one-hot encoded labels
- Trained and evaluated on the MNIST dataset, achieving 84.7% validation accuracy

Student Assistant Chatbot using RAG | LangChain, ChromaDB, OpenAI, Gradio — Nov 2025
- Implemented full RAG pipeline using regex chunking, ChromaDB vector store, and OpenAI embeddings
- Built Gradio interface for natural language querying
- Designed controlled prompting to significantly reduce hallucinations

Transportation Access Classifier | MobileNetV2, Transfer Learning, TensorFlow — Apr 2025
- Built multi-class image classifier for automated vehicle access control using transfer learning with MobileNetV2 (pre-trained on ImageNet), achieving high accuracy across car, scooter, and denied access categories
- Implemented data augmentation pipeline and custom dense layers on frozen base model; trained and evaluated using categorical crossentropy with validation monitoring and ModelCheckpoint callbacks
- Published reproducible Jupyter notebook workflow with training visualizations, demonstrating model performance progression and overfitting detection strategies

CERTIFICATIONS

Critical Thinking in the AI Era   Jan 2026
HP LIFE

Ethical Considerations for Generative AI   Jan 2026
IBM

Data Science & Analytics   Jan 2026
HP LIFE

AWS Educate: Introduction to Generative AI   Dec 2025
Amazon Web Services (AWS)

1 Million Prompters Prompt Engineering and AI Literacy   Jul 2025
Dubai Future Foundation

UAE Artificial Intelligence Academy   May 2025
ZAKA & Microsoft

Career Essentials in Generative AI   Apr 2025
Microsoft & LinkedIn

AI OUTREACH AND INITIATIVES

Author, *22 Fun Prompts You Can Try*   Dec 2025 – Jan 2026
Self-published AI prompt guide

- Wrote and published a 31-page beginner-friendly AI guide featuring 22 structured prompts for productivity, creativity, and learning

Creator, AI in the Middle East Newsletter   Sep 2025 – Present
Self-initiated regional AI newsletter

- Authored regional AI insights on research trends, policy, and investment

Founder, 100 Days of Python Educational Sequence   Jul 2025 – Present
Structured Python learning initiative

- Developed curriculum for beginner to intermediate Python learners

Instructor, Beginner Friendly AI Workshops for Children   Apr 2025 – Present
Introductory AI education for children

- Delivered AI and ML concepts to children ages 8–15 through simple analogies and activities

AWARDS AND HONORS

Dean's List Award - Spring 2025   Nov 2025
United Arab Emirates University

Dean's List Award - Fall 2024   Apr 2025
United Arab Emirates University

Honors Award for Academic Excellence   Apr 2025
United Arab Emirates University

Dean's List Award - Spring 2024   Nov 2024
United Arab Emirates University

SKILLS

Programming: Python, Java, C++, SQL, JavaScript
ML/AI: RAG, Deep Learning, CNNs, Transfer Learning, Prompt Engineering
Libraries: LangChain, ChromaDB, OpenAI API, PyTorch, TensorFlow, Scikit-learn
Tools: Git, GitHub, VS Code, Jupyter, Gradio
Other: Data Visualization, API Development, Leadership, Team Collaboration, Problem Solving, Public Speaking, Project Planning, Curriculum Design, Technical Writing, Teaching and Mentoring

LANGUAGES

Arabic Native | English Fluent