

MOHAMED ALI

APPLIED AI ENGINEER | MACHINE LEARNING, NLP & RAG

Vienna, Austria | EU work authorization | mohamad.tharwat.1997@gmail.com
medoali.at | github.com/Zeromeam | linkedin.com/in/mohamed-ali-37419313a

Applied AI engineer with experience building document-grounded language-model systems, evaluation pipelines, guardrails, and machine-learning experiments. I combine implementation depth with clear evidence: retrieval metrics, uncertainty-aware benchmarks, honest model comparisons, and accessible explanations.

EXPERIENCE

AI Engineer Intern - Oesterreichische Nationalbank (OeNB)

Vienna | Jul 2024 - Mar 2025 | Internship extended from six to nine months

- Built containerized AI workflows and document ingestion for PDF, TXT, and DOCX sources.
- Developed RAG workflows with Hugging Face and vLLM models, PostgreSQL, NLTK, and Stanza.
- Evaluated retrieval with recall and NDCG; explored reflection, structured prompting, few-shot examples, and fine-tuning.
- Implemented cosine-similarity guardrails and a graph-description tool supporting more accessible document use.

SELECTED PROJECTS

xLSTM Hybrid Benchmarks

Benchmarked xLSTM, LSTM, and Transformer block combinations on MQAR and formal-language tasks; reported repeated experiments with mean and 95% confidence intervals.

Bird Recognition from Sound

Designed a multi-branch network combining Mel, MFCC, and engineered acoustic features; used macro-F1 to evaluate imbalanced species classes.

Depixelation

Applied a Deep Recursive Laplacian Network to block-corrupted grayscale images and compared corrupted input, reconstruction, and reference at aligned crops.

Neural Network in C++

Implemented a feed-forward handwritten-digit classifier from first principles with a verified 784-100-10 architecture.

EDUCATION

MSc Artificial Intelligence

Johannes Kepler University Linz
Mar 2025 - present, part-time

BSc Artificial Intelligence

Johannes Kepler University Linz
Oct 2022 - Jun 2025

CORE SKILLS

Applied AI

RAG, LLM workflows, NLP, prompt design, retrieval evaluation, guardrails

Machine Learning

PyTorch, neural networks, sequence models, computer vision, audio ML

Engineering

Python, C++, SQL, PostgreSQL, Git, Linux, containers

Experimentation

Recall, NDCG, macro-F1, ablations, confidence intervals, data visualization

LANGUAGES

English - professional
German - developing
Arabic - native

AVAILABILITY

Actively seeking Applied AI and LLM opportunities in Vienna or remote across the EU.