ABDELAZIM LOKMA

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https://abdelazimlokma.github.io

EDUCATION

Boston University Boston, MA

Masters, Artificial Intelligence - Final GPA : 3.8 / 4.0 Sep 2023 - Dec 2024

Relevant Coursework: Graduate Object Oriented Programming & Design Principles, Machine Learning, Computer Vision, Natural Language Processing, Graduate Databases.

Boston University Boston, MA

Bachelor of Arts and Sciences, Major in Computer Science May 2023

Minor in Business Administration

EXPERIENCE

A.I Engineer Intern March 2025 – Present

Horizon World Salon Inc. Remote (Based in New York, NY)

- Developed a Retrieval-Augmented Generation (R.A.G) pipeline to recommend experts for specific events, enhancing matchmaking accuracy.
- Collaborated with cross-functional teams to integrate A.I solutions, improving event curation and attendee satisfaction.
- Contributed to data preprocessing and feature engineering, enhancing the performance of machine learning models in expert recommendation.

A.I Engineer Jan 2025 – Present

Talentora Boston, MA

- Contributed to the creation of Talentora, a BU-based startup focused on replacing traditional resume screening with scalable, AI-powered interviews.
- Designed and improved Talentora's AI-powered interview system, using LangChain and Pipecat Flows for smooth, automated interviews.
- Developed an SVR-based model to analyze emotional cues and generate candidate employability scores.

Teaching Assistant - CS 611 Graduate O.O.P & Software Design in Java Sep 2024 - Dec 2024

Boston University Boston, MA

- Taught and mentored over 50 graduate students in lab sessions, providing guidance on Object-Oriented Programming concepts in Java.
- Collaborated with the course instructor to influence course design, helping to shape lab exercises and assignments to better align with learning objectives.

PROJECTS

FairCase A.I - Machine Learning Project (Python, ChromaDB, LangChain) Dec 2024

- Designed FairCase, an AI-powered tool for the National Lawyers Guild Massachusetts Chapter, automating the analysis of civilian complaints against Boston Police Department officers.
- Implemented a custom LangChain multi-query retriever that dynamically generates RAG queries for each allegation-description pair by extracting contextually relevant segments of complaint descriptions.
- Utilized R.A.G, ChromaDB and advanced prompt engineering to retrieve B.P.D policies, analyze misconduct, and provide explainable, actionable reprimand recommendations for B.P.D officers.

Sign Language Identification Program - Computer Vision Project (Python, OpenCV) Mar 2024

- Spearheaded design and implementation of an algorithm to recognize American Sign Language (ASL) gestures using template matching and circularity measurement techniques.
- Achieved a greater than 90% classification accuracy in ASL gesture recognition.

Fully Convolutional Network for Semantic Segmentation - Computer Vision Project Feb 2024

- Implemented and trained a Fully Convolutional Network (FCN-8s) with a VGG-16 backbone for semantic segmentation, optimizing key components like the forward pass, loss function.
- Achieved a performance of mIoU > 27% on a custom dataset by fine-tuning the model's hyper-parameters, exceeding the baseline requirements.

SKILLS & CERTIFICATIONS

- Programming: Java, Python (Pandas, PyTorch, HuggingFace, NumPy), LangChain, C++, SQL, Git.
- Cloud & DevOps: AWS Cloud Practitioner (CLF-02) Certified, Docker.
- Multilingual: Arabic (Native), English (Fluent), French (Conversational).