Adem Mcharek

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EDUCATION

Long Island University - Honors College   Brooklyn, NY, USA
Bachelor of Science in Artificial Intelligence, May 2025   Cumulative GPA: 3.9

- Relevant courses: Machine Learning, Deep Learning, Applicable Deep Learning, Cloud Computing, Natural Language Processing, Software Engineering , Modern Cryptography, Data Mining and Business Intelligence, Big Data Computing

PROFESSIONAL EXPERIENCES

Entrance Group   New York, NY
Intern   Feb 2024 – May 2024

- Developed and maintained backend functionalities for a Flask application aimed at facilitating text-based interactions.
- Implemented the assistant API within the Flask app, enhancing its functionality and responsiveness.
- Collaborated with team members to troubleshoot issues and optimize performance to improve user experience.

TECHNICAL SKILLS

Proficient: Python,Flask, Tensorflow, Pytorch, C++.

Working Knowledge: MySQL, R, JavaScript, Node.js, Unity.

PROJECTS

Long Island University   Brooklyn, NY
AI Research Project   Nov 2023 – Jan 2024

- Orchestrate an AI Research Assistant using AUTOGEN's multi-agent system for real-time academic literature retrieval using Retrieval Augmented Generation (RAG), transforming scholarly research and dialogue synthesis.
- Developed multiple multi-agent subprojects incorporating web scraping, real-time file retrieval, and advanced mathematical computations, including a Research Navigator for automating the process of searching for related papers.

Computer Vision using TensorFlow   spring 2022 – 2023

- Developed a hand gesture recognition system utilizing SSD MobileNet V2 FPNLite, achieving an 85% recall rate on a 200-image dataset, facilitating real-time detection for applications such as sign language translation.
- Created a web app to detect fruit freshness showcasing the practical utility of the application in agriculture and retail.

HONORS/AWARDS

Bronze and Silver medals in the International Youth Mathematical Olympiad | *online*   2019-2020

People's Choice Award at #hackathon4Justice by the UN | *the World Bank, Washington D.C.— USA*   2019

6th place in the NASA Space Apps Challenge held in Sfax | *Tunisia*   2019

LEADERSHIP

Founder and President of AI Club | *LIU, USA*   Nov 2023 – present
- Foster a vibrant community of over 50 AI enthusiasts who tackle complex high-level projects.
- Direct innovative projects across AI disciplines, advancing members' hands-on experience and research capabilities.

Math Olympiad | *Tunisia*   March 2018 - 2020
- Enhanced problem-solving abilities and won over 20 victories in national and international math competitions.

Founder and Mentor in AJST Zarzis | *Zarzis, Tunisia*   May 2015 – August 2021
- Initiated and cultivated AJST Zarzis, a scientific club that grew over 100 active participants where we developed projects utilizing Arduino and fostered learning in C and python for game development under the mentorship of local professors.
- As a math mentor, guided 15 members in math Olympiad concepts preparing them for Math Olympiad competitions.

LANGUAGE SKILLS

Arabic: Native language **English**: Fluent **French**: Fluent

ATHLETICS

Fencing: D1 Student-Athlete (saber/foil) **Tennis**:10+ years