

Nora Ekramy Mohammed

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PROFESSIONAL EXPERIENCE

Artificial Intelligence Engineer and Founder

Youtiva 

May 2024 – present
New York, United States

- Founded and led Youtiva, focusing on AI-driven solutions.
- Spearheaded product development and successful launch.
- Built and managed a cross-functional tech team.
- Secured key partnerships and business opportunities.

Artificial Intelligence Specialist

Yerma 

Feb 2024 – present
New jersey,
United States

- LLM Optimization: Specialize in fine-tuning large language models (LLMs), including Retriever-Augmented Generation (RAG), for optimal performance.
- Strategic Collaboration: Work with cross-functional teams to seamlessly integrate advanced AI solutions like LLMs into broader project frameworks.

Top Rated Freelancer AI & Machine Learning Engineer

Upwork 

Oct 2023 – present
New York, United States

- Achieved a 100% job success rate as a top-rated freelancer on Upwork, completing various projects with high client satisfaction.
- Developed an interactive soft toy implementing transfer learning for real-time emotion detection from facial expressions, achieving 89% accuracy using DenseNet and CNNs.
- Created a real-time hand gesture recognition system, making all models lightweight for integration on Raspberry Pi 4.
- Achieved 98% test accuracy in hand gesture recognition from a solder sensor using Random Forest, demonstrating strong skills in machine learning and sensor integration.

Artificial Intelligence Engineer intern

RadicalXAI 

Oct 2023 – Jan 2024
New York, United States

- Designing and develop AI models, optimize algorithms, and augment existing models.
- Analyzing data for machine learning, present research findings, and actively contribute in team meetings.
- Contributing to projects like AI Career Coach and anti-cheat systems, using technologies like OpenAI and TensorFlow.

EDUCATION

Bachelor of Computer Science

Ain Shams University 

2019 – 2023
cairo, Egypt

Relevant Coursework: Algorithms, Database Management, Data Structures, Object-oriented programming, Machine Learning and Deep learning.

SKILLS

Programming languages

Python, C, C++, C#, SQL, Java, HTML, CSS, JavaScript, Arduino C

Frameworks

Pandas, NumPy, scikit-learn, PyTorch, TensorFlow

Other

Computer Vision, Linux shell, Git and GitHub, Competitive programming.

AWARDS

Nasa Space Apps Cairo Hackathon

2022

We managed to get first place in the Nasa space apps Cairo 2022 hackathon

Egyptian Collegiate Programming Contest (ECPC)
passed the Qualification contest and achieved the 18th place at the ECPC.

2021

Treasure hunt Collegiate Programming Contest
achieved 1st place by solving 6 middle and hard problems with C++.

CERTIFICATES

- Machine Learning 
- Number Theory and Cryptography 
- Neural Networks and Deep Learning 

PROJECTS

NeuroPhone RealTime BrainMobilePhone Interface

Graduation Project

- Actively participated in data collection through emotive headsets, contributing to a comprehensive dataset for analysis.
- Implemented preprocessing tasks and made significant contributions to CNN-based training, resulting in an impressive average accuracy of 98% and an F1 score of 95%, outperforming industry standards.
- Constructed the EEG acquisition circuit, showcasing versatile skills in data handling, hardware integration, and neural network implementation.

ECG Based Authentication Interface

- Applied advanced signal processing techniques and in-depth understanding of ECG signals to develop a robust authentication system.
- Utilized Machine learning classifiers including Support Vector Machines, Logistic Regression, and Random Forest, achieving a 100% accuracy rate for user authentication.

Sports Image Classification

Deep learning Project

- Implemented image preprocessing techniques using CV2 library, optimizing images for deep learning model input.
- Established a pipeline for image augmentation, significantly enhancing the performance of the Deep learning model, which achieved an accuracy rate of 92% in classifying sports images.

handwritten-signature-recognition

Computer vision

- Implemented signature detection using YOLOv7, ensuring accurate identification and verification.
- Verify and identify it with Siamese model with accuracy 100%.

TheArtInOurWorlds-NASA-Space-Apps

- Integrated speech-to-text and text-to-speech features for accessibility, supporting multiple languages and enhancing user experience.
- Implemented a solution pipeline involving image extraction, speech-to-text transcription, text summarization, and document similarity using machine learning models.
- Applied creative image distortion techniques, contributing to innovative approaches in image processing.

Word-Net Problem

Algorithm project

- Successfully tackled the Word-Net Problem using DFS, BFS, and LCA algorithms, demonstrating strong algorithmic skills and problem-solving abilities.
- Optimized runtime from 24 minutes to 3 seconds for all tests with C#, showcasing exceptional performance enhancement capabilities.

PUBLICATIONS

NuroPhone: Real-Time Brain-Controlled Mobile Interface for People with Disabilities

Sep 2024

Presented at: 11th International Conference on Information Society and Technology (ICIST 2023)

- Designed and implemented a brain-computer interface allowing users with limited mobility to control a phone using EEG signals.
- Combined signal acquisition hardware with a CNN-based model, achieving 98% accuracy and a 95% F1 score.
- DOI: 10.3217/978-3-99161-014-4-085