Omar Shoura

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Shoura.o@northeastern.edu
linkedin.com/in/oshoura
omarshoura.com

Education

Northeastern University, Khoury College of Computer Science - Boston, MA   *Sep 2020 – Present*
Candidate for a Bachelor of Science in Computer Science   *Graduation: Apr 2024*

- ***GPA: 3.9 / 4.0*** - Dean's List
- ***Coursework*:** Artificial Intelligence, Machine Learning I, Software Engineering, Programming Languages, Foundation of Data Science, Object-Oriented Design, Algorithms and Data Structures, Cybersecurity I
- ***Islamic Society of Northeastern [Vice President]*:** With team of 5, planned 16-team charity basketball tournament finding sponsors, attracting 300+ spectators, and raising nearly $5k for local charities.
- ***Generate [Software Engineer]:*** Collaborated with 5 engineers to deliver an MVP web application to client in 4 months using React, Django, Spotify API, Redux, and Figma
- ***Teaching Assistant [Into to CS & OOD]:*** Orchestrated 200+ participant review sessions, directed 30+ student labs on basic to advanced CS paradigms, and offered individualized academic assistance.

Relevant Experience

Capital One: Cloud Maturity – Mclean, VA   *Jun 2023 – Aug 2023*
Software Engineer Intern

- Developed MVP platform for assessing compliance, performance, and efficiency of AWS resources across org
- Integrated 6 internal data sources through APIs, cleaned and normalized, then loaded into postgreSQL
- Built dashboard using Streamlit to search for accounts, display their score and affected resources and offer remediation instructions; Interfaced with internal library for interacting with AWS resources (boto3 wrapper)
- Volunteered for 12 hours to teach middle school kids coding in small groups providing individual assistance

Liberty Mutual Insurance: Office of Data Science – Boston, MA.   *Jul 2022 – Dec 2022*
Machine Learning Engineer Coop

- Redesigned an insurance modeling library in python, to reduce memory usage, standardize interfaces by following Sklearn standards, and improve documentation consistency; 12+ engineers use library
- Accelerated deployment process by 85% by designing robust, well-tested data transformers for underwriting models, reducing deployment from 3 months to 2 weeks; Received very positive feedback after presenting
- Designed new ensemble model to aggregate 3 models to improve predictions; currently deployed and used

Technical Skills

Languages	Python, Java, JavaScript, TypeScript, Lisp, HTML, CSS, C++
Frameworks	Pandas, NumPy, Sklearn, Tensorflow, Pytest, OpenCV, Node.js, React.js, Boto3, SQLAlchamey
Tools	MLflow, Databricks, Datadog, Snowflake, Pinecone, AWS, RESTful API's, Git, SQL, VIM, Bash,
Certifications	AWS Cloud Practitioner, AWS Associate Developer (IP)

Projects (Refer to *GitHub* for more)

IslamGPT – *Langchain, Pinecone, GPT-4, Next.js*   *Jul 2023*

- Created the first chatbot ground in Islamic Sources, built using Next.js
- Embed text using OpenAI, store vectors in Pinecone, and build chatbot using GPT-4 and Langchain

Collaboration Features in Virtual Meeting Platform – *Twilio, Socket.io, React Canvas*   *Apr 2023*

- Planned, designed, and successfully implemented a screensharing and whiteboarding feature with a team of 4 into an opensource collaborative meeting space called covey.town.

Custom Facial Recognition Model – *TensorFlow, OpenCV, CNN*   *Dec 2022*

- Developed facial recognition model using a Siamese Convolutional Neural Net, capable of identifying whether two faces belong to the same person without previous examples following this paper
- Built a Streamlit dashboard with a facial segmentation pipeline to determine if I am in the uploaded image