ANTONIO MOURA

mouranyto@gmail.com | (857) 452-7891 | Website

SUMMARY

Software engineer with experience across TypeScript/React, Python, C++, and embedded systems. Built production web UIs, ML pipelines, and XR visualizations. Comfortable with UNIX, Git, and HPC (SLURM) workflows. Bias for measurable impact and ownership.

EDUCATION

University of Massachusetts Boston — B.S. Computer Engineering, Minor in Computer Science | 2025

GPA: 3.96/4.00 | Honors: Summa Cum Laude (highest honors)

TECHNICAL SKILLS

Languages: TypeScript, Python, C++, Java, Swift, JavaScript, HTML/CSS, MATLAB, VHDL, MicroPython

Frameworks & Platforms: React, FastAPI, TensorFlow, Keras, Supabase, Firebase, Unity, Arduino, Blynk

Tools: Git, GitHub, Jira, Slack, KiCad, Unix, SLURM (HPC)

Hardware & IoT: Raspberry Pi, ESP32, BLE communication, PCB design

XR: Microsoft HoloLens 2, Unity MRTK

EXPERIENCE

Software Engineer, Wind Energy Systems Lab — UMass Boston | Sep 2023 — Dec 2025

- As a Software/Research-Fellow Engineer developed engineering wake models to enhance energy production efficiency in offshore wind farms; used Python, PyWake, and SLURM on HPC clusters.
- Authored and published research on inter-farm wake interactions; presented findings at MassURC and Wake Conference 2025.
- Operated HPC clusters (UNIX + SLURM) for large-scale simulations and data analysis.

Web Developer — Delga LLC (Remote, USA) | Aug 2022 — Oct 2023

- Built and deployed a responsive university site using HTML, CSS, JavaScript, and React; improved load performance and user experience.
- Created a reusable overlay component adopted across subsequent projects, generating additional business opportunities.

Fulfillment Associate & Team Lead — Amazon (MA) | Sep 2023 — Present

- Performed Trailer Docking and Releasing and optimized pallet organization, cutting truck wait times.
- Led a new merging initiative that improved delivery success rate by 10%.

PROJECTS

Real-Time Digital Twin System (Senior Design) | Sep 2024 — May 2025 | GitHub

- Integrated thermal, ultrasonic, and gas sensors with ESP32/Raspberry Pi and ML models for occupancy and environmental monitoring.
- Achieved 98.85% accuracy using CNN models to predict room occupancy from thermal images.
- Built interactive VR data visualization in Unity for Microsoft HoloLens 2 to enable real-time monitoring.

Parametric Analysis of Inter-Farm Wake Interactions in Offshore Wind Farm Projects Along the U.S. East Coast | 2025

- Conducted parametric analysis on factors influencing Annual Energy Production using PyWake, Global Wind Atlas, and Sea Impact tools.
- Published in IOPscience with NSF support.

AWARDS, HONORS, FELLOWSHIPS

- Summa Cum Laude, 2025
- McNair Research Fellowship Graduate, UMass Boston (2024)
- Institute of Diversity Sciences Fellowship, UMass Amherst (2025)
- Summer Leadership Academy, UMass Amherst (2024)
- Outstanding Student Achievement in Engineering, UMass Boston
- National Grid Clean Energy Academy Scholarship (2024)
- NIA Award Plaque (GPA 3.8+)
- Black Diaspora Career and Care Summit (2025)