Manuel Capiendo

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Active DOD Secret Level Security Clearance

Education

Florida Atlantic University | Bachelor of Science — Expected August 2026
Major: ***Computer Science*** | Minor: ***Artificial Intelligence***
- Relevant Coursework: Data Mining & Machine Learning, Design/Analysis of Algorithms, Data Science Analytics, Artificial Intelligence, Data Structures & Algorithms, Database Structures, Software Engineering, C/C++, Python, Assembly

Skills

Languages: Python, C/C++, JavaScript, HTML, CSS	**Frameworks**: React, React Native, Angular, Next.js, Node.js	**Data/ML**: Pytorch, Scikit-Learn, Pandas, NumPy, SQL, MongoDB	**API Tools**: RESTful API, Postman	**Practices**: Agile/Scrum, Git Version Control, CI/CD	**Certifications**: AWS CPP

Experience

NextEra Energy | ***IT Nuclear Solutions Analyst Intern*** — Summer 2025
- Gaining hands-on experience developing AI-powered digital twin models in nuclear operations, developing expertise in both AI implementation and industrial system optimization.
- Enhancing cross-functional collaboration by working closely with nuclear engineers and data scientists to develop AI-driven solutions that improve safety and operational reliability in nuclear environments.

Sparton Corporation | ***Acoustic Engineering Intern*** — Summer 2024
- Spearheaded the development of a testing system for sonobuoy piezoelectric ceramics in **C**, integrating advanced ***hardware automation*** and custom-built software to ***reduce testing time by 75%*** from 160 seconds to just 40 seconds.
- Designed and deployed an automated ***SQL***-based data pipeline to process 1,000+ sonobuoy component tests, ***reducing data retrieval time by 50%*** and ensuring high-precision analysis for acoustic engineering applications.

Projects

Fish Image Classifier | *Python* — Present
- Developing a ***machine learning*** fish species classification model using ***Python*** for a local fishing club, training on 200+ submitted images to improve log accuracy by 85%, with plans for an app ***reducing manual entry time by 60%***.

Schedule Optimizer | *JavaScript, React, Next.js, MongoDB* — March 2025
- Developed a CRUD task management application using **Next.js** and **MongoDB**, customized interface, popup task details, and persistent storage, providing seamless task organization while enhancing user productivity.

LeetCode Tracker | *JavaScript, React Native* — February 2025
- Developed a ***React Native mobile app*** with a minimal UI, allowing users to log, track, and visualize their LeetCode progress asynchronously, storing 100+ problem entries using async storage for user storage across sessions.

Portfolio Website | *JavaScript, React, Next.js* — January 2025
- Created a fully responsive and interactive portfolio website with ***Next.js*** to showcase projects, professional experience, and resume, featuring a modern design with smooth animations, mobile optimization, and seamless navigation.

Involvement

Instructional Coder | *South Florida Tech Hub* — February 2025 - Present
- Volunteer coding instructor for monthly in-person coding classes designed for K-12 students, creating an engaging and supportive learning environment while introducing fundamental programming concepts.

Cognitive Hackathon - 2nd Place | *Python* — August 2024
- Developed an AI-driven optimization solution using ***Python*** utilizing Ant Colony Optimization to ***reduce route inefficiencies by 10%***, contributing to innovative energy initiatives, for sustainable resource management through swarms.

Leadership

Midshipman | *Naval Reserve Officer Training Corps* — Summer 2021 - Spring 2023
- Cultivated advanced leadership skills through comprehensive military training, successfully completing rigorous physical and academic performance assessments.
- Demonstrated strategic team leadership by coordinating group training exercises and ***mentoring 4 junior midshipmen***, improving team performance and individual professional development.

Ambassador | *Asian American Association* — Spring 2022 - Spring 2023
- Strengthened event coordination and cross-cultural communication by actively ***supporting and organizing 11 diverse cultural events***, fostering deeper interpersonal connections and enhancing organizational engagement.
- Played a key role in promoting and preserving cultural heritage by leading outreach efforts, assisting in event logistics, and ensuring smooth execution of operations to increase member participation and awareness.