Manuel Capiendo

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Active DOD Secret Level Security Clearance

Education

Florida Atlantic University | Bachelor of Science

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

Expected August 2026

Skills

Languages/Tools: Python, C/C++, JavaScript, SQL, HTML, CSS, PyTorch, scikit-learn, Pandas, NumPy

Frameworks: React, React Native, Angular, Next.js, Node.js **Practices**: Agile/Scrum, Git Version Control, CI/CD **Certifications**: AWS CPP

Experience

NextEra Energy | IT Nuclear Solutions Analyst Intern

- 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

Summer 2025

- Spearheaded the development of a testing system for sonobuoy piezoelectric ceramics in **C**, integrating advanced *bardware 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%*.

March 2025

Built a task scheduling application using Next.js with a custom interface, featuring a progress dashboard, popup task
details, and local storage functionality, providing a seamless task management experience while increasing user productivity.

LeetCode Tracker | JavaScript, React Native

Schedule Optimizer | *JavaScript*, *React*, *Next.js*

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.