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: Frontend Development, Data Mining & Machine Learning, Deep Learning, Design/Analysis of Algorithms, Data Science Analytics, Artificial Intelligence, Data Structures & Algorithms, Database Structures, Software Engineering, C/C++, Python, Assembly

Skills

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

Voice-Controlled Robot Assistant | Python, *Arduino* — May 2025
- Engineered a voice-interactive robot utilizing **Python** for **speech recognition**, **Arduino** for **servo motor control**, and Google's **Gemini API** for **natural language processing**, for a responsive robot with physical interaction capabilities.

Thrill Seeker | *JavaScript, HTML, CSS* — May 2025
- Developed a GeoGuessr-inspired theme park guessing game utilizing **JavaScript** for game mechanics, **HTML image maps** for location selection, and implemented **customizable difficulty settings** with **random image generation**.

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.