

Manuel Capiendo

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EDUCATION

Florida Atlantic University | Bachelor of Science

Expected December 2026

Major: **Computer Science** | Minor: **Artificial Intelligence**

Relevant Coursework: Web Development, Software Engineering, Data Structures & Algorithms, C & C++, Python, Database Structures, Data Science & AI

Certifications: AWS Certified Cloud Practitioner, Lean Six Sigma Yellow Belt, Active Secret Security Clearance

SKILLS

Languages:

Python, JavaScript, Java,
C/C++, C#, SQL

Frameworks:

React, React Native, Angular,
Vue.js, Next.js, Node.js, Flask

Databases:

MongoDB, PostgreSQL,
Microsoft SQL Server

Tools:

Git, Github, Linux, Postman, Unity,
S3, Selenium, PowerBI, Jira

Practices:

Agile, CI/CD,
Lean Six Sigma

EXPERIENCE

Florida Power & Light | IT Nuclear Solutions Analyst Intern

May 2025 - Present

- Developed **VR digital twin** prototype in **Unity** using **point cloud scanning**, collaborating with **cross-functional teams** to improve nuclear operator training retention through immersive walk-throughs and reduce onboarding time by **10%**.
- Deployed autonomous robotic inspection paths in nuclear facilities, advancing inspection efficiency from manual to continuous operations, resulting in a **90% increase** in data retrieval accuracy.

NextEra Energy | Data Science Side Project

June 2025 - July 2025

- Improved existing **Python script** to replace local file ingestion with **AWS S3** data transfer, efficiently extracting, sanitizing, and preprocessing **150K+ nuclear documents** for topic modeling.
- Prepared, cleaned, and structured 4,000-word snippets for downstream BERTopic modeling and large language model summarization, with outputs embedded and indexed in Elasticsearch for semantic search.

Sparton Corporation | Acoustic Engineering Intern

May 2024 - August 2024

- Collaborated across engineering teams to design automated testing workstation, **leading C development** that **reduced test time** from 160 to 40 seconds (**75% improvement**).
- Coordinated with a different team to build and deploy a **Microsoft SQL data pipeline** for **1,000+ component tests** that happen on shipment days, accelerating data retrieval by **50%**.

PROJECTS

Theme Park Ticketing System | React, Flask, PostgreSQL, Selenium

July 2025 - August 2025

- Developed **full-stack** attraction ticketing platform featuring photo verification and end-to-end **automated testing**, ensuring robust frontend/backend integration and **database reliability**.

Disney Emissions Dashboard | JavaScript

June 2025 - July 2025

- Developed interactive sustainability dashboard for The Walt Disney Company to **visualize Scope 1-3 carbon emissions** and **track progress** toward 2030 net zero targets; integrated petition registration feature.

Voice-Controlled Robot | Python, Arduino

April 2025 - May 2025

- Engineered voice-interactive robot using **Python** for speech recognition, **Arduino** for servo motor control, and **Google's Gemini API** for natural language processing, creating a responsive robot with physical interaction capabilities.

Thrill Seeker | JavaScript

April 2025 - May 2025

- Created GeoGuessr-inspired **theme park location guessing game** using **JavaScript**, featuring dynamic image maps, randomized clues, and adjustable difficulty to create engaging and replayable user experience across several locations.

INVOLVEMENT

Instructional Coder | South Florida Tech Hub

February 2025 - Present

- Volunteer coding instructor for **monthly K-12** intro programming workshops, **teaching programming** fundamentals and fostering inclusive, hands-on learning environments.

NEXT100 Hackathon | Fan Favorite Award

July 2025 - July 2025

- Led team of 5** to develop internal AI career support tool leveraging organizational data to suggest role transitions based on employee skills and backgrounds based on successful career transitions, with **similar solution later adopted by the company**.

Biotech Hackathon | Team Lead

January 2025 - January 2025

- Led 4-person interdisciplinary team** to develop proof-of-concept and prototype predictive tool for researchers to measure human mycobiomes with live data visualization across **10+ individual test cases**.

Cognitive Hackathon | 2nd Place Award

August 2024 - August 2024

- Developed **AI-driven Ant Colony Optimization system** to reduce waste management routing inefficiencies by **10%**, improving sustainable logistics modeling for operational efficiency and earned **2nd place** working independently.