

Manuel Capiendo

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EDUCATION

Florida Atlantic University | Bachelor of Science
Major: *Computer Science* | Minor: *Artificial Intelligence*
Certifications: AWS Certified Cloud Practitioner, Lean Six Sigma Yellow Belt, Active Secret Security Clearance

Expected December 2026

SKILLS

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

Frameworks:
React, React Native, Angular,
Node.js, Next.js, Flask

Databases:
MongoDB, PostgreSQL,
Microsoft SQL Server

Tools:
Git, Github, Linux, Postman,
Unity, S3, Selenium, Power BI

Practices:
Agile, CI/CD

EXPERIENCE

Florida Power & Light | *IT Nuclear Solutions Analyst Intern*
• Developed a **VR digital twin** prototype in **Unity** using **point cloud scanning** to improve multi-site nuclear operator training, collaborating with **cross-functional teams** to boost retention and shorten onboarding time.
• Deployed autonomous robotic patrol walk branches in nuclear facilities, advancing inspection efficiency **from manual to continuous** resulting in a **90% increase in data retrieval accuracy**.

May 2025 - Present

NextEra Energy | *Data Science Side Project - BERTopic Pipeline*
• Improved an 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 **LLM summarization**, with outputs embedded and indexed in Elasticsearch for semantic search.

June 2025 - July 2025

Sparton Corporation | *Acoustic Engineering Intern*
• Collaborated across engineering teams to **design automated testing workstation**, spearheading **development in C** 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%**.

May 2024 - August 2024

PROJECTS

Theme Park Ticketing System | *React, Flask, PostgreSQL, Selenium*
• Developing a **full-stack ticketing platform** featuring photo verification and end-to-end automated testing, ensuring robust **frontend/backend integration** and **database reliability**.

July 2025 - August 2025

Disney Emissions Dashboard | *JavaScript, HTML, CSS*
• Developed an **interactive sustainability dashboard** on The Walt Disney Company to visualize Scope 1–3 carbon emissions and track progress toward 2030 net zero targets; integrated a **petition registration feature**.

June 2025 - July 2025

Voice-Controlled Robot Assistant | *Python, Arduino*
• 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.

April 2025 - May 2025

Thrill Seeker | *JavaScript, HTML, CSS*
• Created a **GeoGuessr-inspired theme park guessing game** using **JavaScript**, featuring dynamic image maps, randomized clues, and adjustable difficulty to create an engaging and replayable user experience.

April 2025 - May 2025

INVOLVEMENT

NEXT100 Hackathon - Fan Favorite | *South Florida Tech Hub*
• **Led a team** of interns to develop an internal **AI career support tool** leveraging organizational data to suggest role transitions based on employee skills and backgrounds, with a similar solution later adopted by the company.

July 2025 - July 2025

Instructional Coder | *South Florida Tech Hub*
• Volunteer instructor for monthly K-12 coding workshops, **teaching programming fundamentals** and fostering inclusive, hands-on learning environments.

February 2025 - Present

Cognitive Hackathon - 2nd Place | *Python*
• Developed an AI-driven **Ant Colony Optimization system** to reduce waste management routing **inefficiencies by 10%**, improving sustainable logistics modeling for operational output.

August 2024 - August 2024

Midshipman | *Naval Reserve Officer Training Corps*
• **Led and mentored** a team of 4 junior midshipmen, cultivating leadership skills, resilience, **public speaking** and presentation expertise through military leadership development.

August 2021 - May 2023