

# Manuel Capiendo

(561) 762-2314 | manuelgcapiendo@gmail.com | www.mgcapiendo.com | linkedin.com/in/capiendo | github.com/mgcapiendo

## EDUCATION

**Florida Atlantic University** | Bachelor of Science

Expected December 2026

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

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

## 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*

May 2025 - Present

- 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**.

### NextEra Energy | *Data Science Side Project - BERTopic Pipeline*

June 2025 - July 2025

- 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.

May 2024 - August 2024

### 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%**.

## PROJECTS

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

July 2025 - August 2025

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

### Disney Emissions Dashboard | *JavaScript, HTML, CSS*

June 2025 - July 2025

- 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**.

### Voice-Controlled Robot Assistant | *Python, Arduino*

April 2025 - May 2025

- Engineered a **voice-interactive** robot using **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*

April 2025 - May 2025

- 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.

## INVOLVEMENT

### NEXT100 Hackathon - Fan Favorite | *NextEra Energy*

July 2025 - July 2025

- 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.

### Instructional Coder | *South Florida Tech Hub*

February 2025 - Present

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

### Cognitive Hackathon - 2nd Place | *Python*

August 2024 - August 2024

- Developed an AI-driven **Ant Colony Optimization system** to reduce waste management routing **inefficiencies by 10%**, improving sustainable logistics modeling for operational output.

### Midshipman | *Naval Reserve Officer Training Corps*

August 2021 - May 2023

- Led and mentored** a team of 4 junior midshipmen, cultivating leadership skills, resilience, **public speaking** and presentation expertise through military leadership development.