

Katrina Adewale

| ka211401@ucf.edu | linkedin.com/in/katrina-adewale | github.com/kateye31

EDUCATION

University of Central Florida

Bachelor of Science in Computer Science; Minor in Intelligent Robotic Systems

Orlando, FL

Dec. 2027 (Expected)

Organizations: STEM Ambassadors, T-LEARN Scholar, Knight Research Scholar, Hack@UCF, Girls Who Code, BSides Florida, WEECS, Knight Hacks, Florida Bright Future's Scholar

EXPERIENCE

Incoming IIoT Solutions Engineer

Nov. 2025 – Present

Lockheed Martin

Orlando, FL

- Developing scalable **IIoT Dashboard Analytics UX** in an **AWS Cloud** infrastructure, architecting end-to-end data pipelines that will connect technical decisions to real-time operational outcomes all across production manufacturing.

Software Engineer Intern

Sept. 2025 – Present

UCF Transfer Connect

Orlando, FL

- Automated Excel lookups for databases of **40000+** cells, increasing efficiency by **200%**, through the development of a **C** program for optimization.
- Decreased task completion time by over **50%**, automating the detection of data inconsistencies across **300+** files.
- Developed a tool that processes **3000+ data points** in seconds, creating a streamlined, one-click operation.

Data Science Research Intern

Jan. 2026 – May 2026

Spatial Analysis Lab

Orlando, FL

- Implementing **statistics** and **data modeling** in **Python** to analyze the effects of natural disasters on resource availability.
- Conducted cross-sectional research and co-authored a research paper.

Software Development Research Intern

Dec. 2025 – Jan. 2025

METIL Lab

Orlando, FL

- Engineered a **\$15.8k** defense system proposal for autonomous drone-related collisions that impacts civilians, sponsored by the **Oak Ridge National Laboratory**, and implemented a pipeline using **Python/PyTorch** and **ROS 2**.
- Optimized **AI-based computer vision** and fluid mechanics to mitigate V-SLAM optical flow vulnerabilities, targeted a **99%** collision-avoidance success rate in real-time simulations.

Guest Speaker Assistant and On-site Organizer

Nov. 2025

BSides Jax

Jacksonville, Florida

- Managed on-site logistics for **15+ volunteers** and **250+ attendees** to ensure 100% operational efficiency.
- Reduced technical risks for **6+ guest speakers** by addressing **hardware/software issues** to ensure zero downtime.
- Compiled data to optimize a **43,000 square foot venue** for **15+** sessions to enhance attendee experience.

PROJECTS

Parallel Computing for Hospitals | *R, Linux, Slurm, Bridges-2 Supercomputer, Parallel Package*

Dec. 2025

- Parallelized data processing by establishing SSH connections to **Bridges-2 Supercomputer**, using **256+ CPU cores**, reducing execution time by **85%+**.
- Implemented **Slurm** to automate resource allocation, optimizing memory usage by **35%**.
- Utilized the **R Parallel** package to convert serial algorithms into parallel processes to handle **10,000+** computations.
- Maintained **99.9%** pipeline dependability on Extreme Shared Memory nodes (**2TB+**).

LeetField | *React, GSAP, Vite, TypeScript, Tailwind CSS, Google Gemini API, Github*

Sept. 2025 – Dec. 2025

- Led the full-stack integration of a Stardew Valley-esque and LeetCode gamified website application for **Girls Who Code** with technical prep to reduce user blockage time by about **40%**.
- Developed a modular frontend and backend, accessing **2,500+** algorithmic problems, **15+** reusable components and **5** protected routes using **React Router**.
- Integrated **Google's Gemini API** to create a contextual tutoring service, processing natural language queries in **C++**, **Python**, and **Java** environments to deliver debugging feedback in under **500ms**.
- Managed repository integrity and **CI/CD workflows** over feature branches, enforcing push/pull protocols to resolve merge conflicts and maintain a stable *codebase* for the team.

SKILLS

Languages: C, C++, JavaScript, Python, Java, TypeScript, SQL, R, HTML/CSS

Frameworks & Libraries: React, Next.js, Node.js, Tailwind CSS, PyTorch, GSAP, AWS, Slurm, Vite, Lambda, Git

Concepts: AI/ML, Computer Vision, Digital Twins, Cybersecurity (Blue Team), Parallel Computing, CI/CD