

# Isabella Sanglade Nucette

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## EDUCATION

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### University of Central Florida

*Expected: Fall 2027*

Bachelor of Science in Computer Science

- Minor in Secure Computing and Networks

*Competition: 1<sup>st</sup> Place, Horse Plinko Cyber Challenge 2025*

## SKILLS

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**Certifications:** Information Technology Specialist in Java, Google Cybersecurity Professional Certificate

**General Skills:** C, Python, Java, HTML, CSS, Linux, SQL, GHIDRA, Reverse Engineering

**Languages:** English and Spanish

## EXPERIENCE

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### Undergraduate Researcher | Knights Research Scholars

*Spring 2026*

*Research: Secure & Fault-Tolerant LLMs for Embedded Systems*

- Conducted in-depth architectural analysis of **vLLM**, tracing the primary inference pipeline from high-level Python APIs to low-level C++ execution paths.
- Examined LLM inference optimization strategies, including memory management, dynamic batching, and GPU execution workflows.
- Analyzed transformer inference components such as model loading, KV caching mechanisms, and token scheduling strategies to understand performance and reliability trade-offs.

### Treasurer | WiCyS UCF

*August 2024 - Present*

- Managed and submitted the chapter's annual financial report, ensuring compliance with national organizational standards.
- Organized Capture the Flag (CTF) workshops and educational presentations to promote cybersecurity awareness and engagement.
- Supported marketing and event coordination initiatives to increase member engagement.

### Infrastructure and Operations Committee | Hack@UCF

*August 2024 - Present*

- Collaborated with peers to strengthen understanding of network security, threat prevention, and Linux.
- Contributed to Infrastructure initiatives, gaining hands-on experience with Docker and Kubernetes.
- Presented at club meetings and supported tabling efforts, including events with 250+ attendees.

### Private Tutor | Freelance

*August 2021 - Present*

- Provide individualized instruction in mathematics (elementary through Pre-Calculus) and literacy development.
- Provides phonics instruction to elementary-aged students to enhance their reading skills.

## PROJECTS |

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### Mario and Aliens | Video game

*June 2023 - July 2023*

- Developed an interactive point-and-click game using Python, where players protect Mario by shooting aliens.
- Utilized collision detection algorithms to ensure accurate hit registration when the mouse pointer aligns with alien sprites.
- Designed and integrated a graphical user interface (GUI) with engaging visuals and animations to enhance player experience.