

# Nathaniel Joseph

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## EDUCATION

University of Miami, Coral Gables, Florida

May 2025

Bachelor of Science, **Computer Engineering & Computer Science**, Minor in Communication

Relevant Coursework: Algorithms; Augmented Reality; Cybersecurity; Data Structures; Electronics; Processors: Hardware, Software, and Interfacing; Structured Digital Design; Systems Programming

## SKILLS

**Languages:** C++ (proficient), C# (proficient), C (proficient), Assembly (intermediate), VHDL (intermediate), Python (intermediate), Java (beginner), HTML/CSS (beginner)

**Frameworks / Technologies:** Altera Monitor Program, AWS/Azure, DE1-SoC Dev Kit, ESRI, Git, iOS, Jira, Lumin OS, Kali Linux, ModelSim, MRTK, .NET MAUI, PSpice, Quartus Prime, TensorFlow, Unity/MARS, UNIX, YOLO

## RELEVANT EXPERIENCE

University of Miami Information Technology, Coral Gables, Florida

04/2022 - Present

*Extended Reality Software Engineer*

- Designed, developed, tested, and deployed augmented reality applications using Magic Leap headsets, Unity, and C# in an Agile workflow.
- Gained proficiency in using MRTK and Unity MARS to create headset and mobile-based AR applications, respectively.
- Core developer of an iOS application that uses YOLOv8 computer vision technology to scan food and accurately return its macronutrient data with respect to portion size. Uses a self-trained database of over 120 thousand food images with hundreds of food options that are scannable, accurate, and allows for user data correction.

The Singular Factory, Miami, Florida

05/2022 - 08/2022

*Software Engineer Intern*

- Utilized ArcGIS mapping software in conjunction with Unity to build a mixed reality application with real-world raised-relief (3D) mapping capability, called HoloGIS.
- Efficiently worked with textures, tiles, and the GPU to understand and take advantage of the inner workings of graphics, how the map rendering works, and how/where data flows to/from the cache.
- Learned to manipulate graphics information and cache to merge information from two different applications to create new application functionality.

## EXTRACURRICULAR ACTIVITY

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|--|----------------------------------|
| • National Society of Black Engineers, Senator | • Caribbean Students Association |
| • Google Developer Students Club               | • Boxing Club                    |
| • Unity Junior Programmer                      | • Pi Kappa Phi Fraternity        |

## ADDITIONAL INFORMATION

**Professional Affiliations:** ColorStack (Member), eMerge Americas (2022 & 2023 Attendee), Live! 360 Orlando (2022 Attendee, AI Track)

**Languages:** English (native), Haitian Creole (fluent), Spanish (fluent), American Sign Language (proficient)

**Personal Interests:** Vinyl collecting, Manga, Social activities, Sports (basketball, football, MMA, esports, chess), DJing