

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

GPA: 3.22

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

SKILLS

Languages: C++/C/C#, Assembly, VHDL, Bash, Python, Java, HTML/CSS, SQL

Frameworks / Technologies: Apple ARKit & RealityKit, AWS, DE1-SoC Dev Kit, ESRI, Git, Google ARCore, iOS, Jira, Kali Linux, ModelSim, MRTK, PostgreSQL, PSpice, Quartus Prime, TensorFlow, Unity/MARS, UNIX, XCode, YOLO

RELEVANT EXPERIENCE

Digital Tales, Milan, Lombardy, Italy (Remote)

July 2023 – August 2023

Incoming Software Engineer Intern (Part-time)

- Taking a role as a developer for an augmented reality 3D automotive part customization and education app via Unity engine

University of Miami, Coral Gables, Florida

April 2022 – Present

Full-stack Software Engineer, Frost Institute for Data Science and Computing

XR Software Engineer, Information Technology Innovate Team

- Designed, developed, tested, and deployed spatial applications using Magic Leap headsets in an Agile workflow
- Lead developer and designer of a mobile AR app that uses YOLOv8 computer vision technology to scan food and return its macronutrient data concerning portion size. Uses a self-trained database of over 120 thousand food images with hundreds of food options that are scannable and accurate, allowing for user input correction
- Full-stack development, work towards application expansion by learning and using the PEAN stack to allow for multiple user registration, real-time image capturing, and uploading to a database via RDBMSs

The Singular Factory, Miami, Florida

May 2022 – August 2022

Software Engineer Intern, X Reality Factory

- Utilized ArcGIS software to build an app with real-world raised-relief (3D) mapping capability for military and corporate use
- Efficiently worked with textures, tiles, and the GPU to understand and take advantage of the inner workings of graphics, how map rendering works, and how/where data flows to/from the cache in map tiling software
- Manipulated data in cache to overhaul existing obsolete map processing system on app for efficient use on spatial devices

PROJECTS

[Calorie Checker AR](#)

June 2022 – Present

- An innovative image-analysis application that gives users the macronutrient and caloric information of food by scanning them with their phone camera in real-time

LICENSES AND CERTIFICATIONS

[Generative AI learning path](#)

Google Cloud Skills Boost

June 2023

[Explore a Career in MLE learning path](#)

LinkedIn

June 2022

[Unity Junior Programmer/Essentials](#)

Unity

May 2022

EXTRACURRICULAR ACTIVITY

University of Miami XR Garage | Google Developer Students Club | Caribbean Students Assoc. | Club Boxing | Pi Kappa Phi Fraternity

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

National Society of Black Engineers, Coral Gables, Florida

August 2022 – Present

Chapter Senator, Vice Presidential Candidate

- Developed and implemented initiatives to enhance diversity and inclusion within the engineering community, organizing workshops, panel discussions, and networking events to foster an inclusive environment for underrepresented students
- Collaborated with NSBE executive board members and school administration to secure additional funding for scholarships and resources, resulting in increased financial support for NSBE members pursuing engineering degrees

ADDITIONAL INFORMATION

Professional Affiliations: ColorStack, SEO Career (Edge Participant), eMerge Americas (2022&2023), Live! 360 Orlando (AI)

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

Personal Interests: DJing, Manga, Social activities, Sports (basketball, chess, e-sports, football, MMA), Vinyl Collecting