

Nathaniel Joseph

nbjoseph23@gmail.com | (631) 796-6361 | <http://linkedin.com/in/nathanieljoseph> | github.com/natejoseph | natejoseph.me

EDUCATION

University of Miami, Coral Gables, Florida

May 2025

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

GPA: 3.22

Relevant Coursework: Artificial Intelligence, Augmented Reality, Computer Org and Design, Cybersecurity, DSA, Electronics, Neural Networks, Operating Systems, Processors, Structured Digital Design, Systems Programming

SKILLS

Languages: C++, Python, C, C#, Assembly, VHDL, JavaScript, Bash, Java, HTML/CSS, SQL (Postgres)

Frameworks / Technologies: Apple ARKit, AWS, DE1-SoC, ESRI, Git, Google ARCore, Google AI Studio, iOS, Jira, Kali Linux, Keras, ModelSim, MRTK, PyTorch, Quartus Prime, scikit-learn, Svelte, TensorFlow, Unity/MARS, UNIX, XCode

RELEVANT EXPERIENCE

University of Miami, Coral Gables, Florida

April 2022 – Present

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

XR Software Engineer, IDSC XR Studio & 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
- Applied system design principles to model a scalable, reliable, and performative system for an app using modern frameworks

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](#) | C#, JavaScript, Unity, ARCore, Git, OpenLabeling, YOLOv8, PostgreSQL, Svelte

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

[Vehicle Positioning](#) | Python, PyTorch, scikit-learn

November 2023

- Modeling and comparing ML and ANN-based approaches for vehicle positioning and line-of-sight signal classification using channel state information

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 |

Kappa Theta Pi Fraternity, Sigma Chapter | Pi Kappa Phi Fraternity, Alpha Chi Chapter

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
- Organized “Friendsgiving” campus-wide collaborative event that fed holiday dinner over 167 black students on campus
- 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