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: 3.30**
Relevant Coursework: Artificial Intelligence, Augmented Reality, Computer Org and Design, Database Design, Network Client-Server Programming, Neural Networks, Operating Systems, Processors, Quantum Computing, Systems Programming

SKILLS

Languages: C++, Python, C, C#, Assembly, VHDL, JavaScript, Bash, Java, HTML/CSS, SQL (Postgres)
Frameworks / Technologies: Apple ARKit, AWS, ESRI, Flutter, Git, Google ARCore, Google AI Studio, iOS, Jira, Jupyter Notebook, Keras, Linux, ModelSim, PyTorch, Quartus Prime, scikit-learn, Svelte, TensorFlow, Unity, UNIX, XCode

RELEVANT EXPERIENCE

NVIDIA, Santa Clara, California **August 2024 – November 2024**
Incoming Software Engineer Intern
- Working as a graphics and mixed reality applied engineering intern for NVIDIA's Enterprise Solutions team

Meta, Menlo Park, California **May 2024 – August 2024**
Incoming Software Engineer Intern
- Working as a software engineering intern throughout summer 2024, team to be determined

University of Miami, Coral Gables, Florida **April 2022 – Present**
Full-stack Software Engineer, Frost Institute for Data Science and Computing
XR Software Engineer, IDSC Virtual Experience Simulation Lab (VESL) & 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

PROJECTS

Calorie Checker AR | *C#, JavaScript, Unity, OpenLabeling, YOLOv8, PostgreSQL, Flutter, Svelte* **June 2022 – Present**
- An innovative image-analysis spatial application that gives users the macronutrient and caloric information of food by scanning them with their phone camera in real-time

MARL Predator and Prey | *Python, Keras, TensorFlow, NumPy, Pygame* **December 2023**
- Using multi-agent reinforcement learning to optimize a predator(s) and prey game by changing parameters, neural network design, and algorithms

Vehicle Positioning | *Python, PyTorch, scikit-learn, Pandas, NumPy* **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**
Unity Junior Programmer/Essentials	*Unity*	**May 2022**

EXTRACURRICULAR ACTIVITY

University of Miami XR Garage | Google Developer Students Club | BJJ Club | Pi Kappa Phi Fraternity, Alpha Chi Chapter

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

Kappa Theta Pi Technology Fraternity, Sigma Chapter, Coral Gables, Florida **October 2023 – Present**
Vice President of Technical Development
- Initiated and led mentorship for junior members, providing guidance in technical skills, career development, and networking
- Oversaw the development and maintenance of the fraternity's technical infrastructure, including website, member databases, and communication tools

National Society of Black Engineers, Coral Gables, Florida **August 2022 – Present**
Chapter Senator
- 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 students on campus