

DOMENICA SIMBANA MOSQUERA

dsimbanamosquera@ufl.edu • (305)-879-1753 • www.linkedin.com/in/domenica-simbana • <https://domesimbana.github.io/MyPortfolio/>

EDUCATION

University of Florida

Gainesville, FL

Bachelor of Science in Computer Engineering

May 2026

Relevant Coursework: Data Structures and Algorithms, Discrete Structures, Intro to Computer Organization, Computational Linear Algebra, Digital Logic, Microprocessors, Embedded Systems, Cross-Cultural Engineering, Performative Programming

PROFESSIONAL EXPERIENCE

Vanguard

May 2025 - Aug 2025

Software Engineering Intern

Malvern, PA

- Built a front-end explainability recommendations feature leveraging Angular that connected to a machine learning model, further improving transparency and enabling over 1,200 financial advisors to interpret client portfolio insights effectively
- Engaged in daily stand-ups with machine learning engineers and collaborated with the UX designer to incorporate advisor feedback, refining interface components and boosting adoption and usability of the recommendations tool

Active Perception and Robot Intelligence Lab

Sep 2024 - Jan 2025

Undergraduate Research Assistant

Gainesville, FL

- Contributed to the development of indoor environment simulations by collecting and preprocessing 200+ images used in Neural Radiance Fields (NeRF) to support accurate scene reconstruction for robotics applications
- Assisted in integrating NeRF-based simulations into the HoloOcean robot framework to support improvements in autonomous navigation and pathfinding within complex indoor spaces

PROJECTS

Toro | *React Native, Expo, IEX Cloud API, Firebase*

Jun 2025 - Present

- Developing Toro, a gamified, mascot-driven app using React Native, Expo, and IEX Cloud API to deliver real-time stock data in an interactive format that simplifies trading concepts for beginners
- Conducting user research to identify learning barriers in stock market education and designed targeted features and visual storytelling elements that enhance comprehension and user engagement

Prospera (ShellHacks 2024 1st Place Vanguard Winner) | *ReactJS, TailWind, Vite, Figma, OpenAI API*

Sep 2024

- Led front-end development using React, Vite, and Tailwind CSS to build an accessible financial literacy platform for immigrant families, featuring a user-friendly interface guided by a personalized Foxy Avatar
- Integrated the OpenAI API to power the Foxy Avatar chatbot, delivering tailored financial advice and tracking user progress through an engaging, culturally aware scoring system

KeroKero (UF Cross-Cultural Engineering in Kyoto, Japan) | *.NET MAUI, XAML, Figma, Google API, C*

May 2024 - Jun 2024

- Engineered both backend and front-end components using .NET MAUI, C#, and XAML to deliver KeroKero, an app providing evacuation routing, disaster preparedness checklists, file uploads, and alert notifications for Kyoto residents
- Conducted user research and collaborated with Kyoto University students to incorporate human-centered design insights, optimizing the app's functionality based on resident needs

LEADERSHIP

UF SwampHacks

May 2024 - Present

Executive of Finance (Apr 2025- Present) & Lead Director of Marketing (May 2024- Apr 2025)

Gainesville, FL

- Executed sponsor outreach and managed finances for UF's largest student-led hackathon by automating 300+ emails, coordinating sponsor meetings, and securing institutional and external funding through university collaboration
- Directed a 3-person marketing team to design Figma assets and launch outreach campaigns that grew applications to 700 and generated 73 project submissions through strategic partnerships and digital engagement

Society of Hispanic Professional Engineers

Sep 2023 - Apr 2024

Equipando Padres Host & Lead Computer Engineer, Autonomous Vehicle Design Team

Gainesville, FL

- Empowered 25+ families through a Spanish-language college access workshop for first-generation students, equipping parents with tools to navigate admissions and financial aid with confidence
- Guided a team of 9 engineers in designing and building an autonomous vehicle using Raspberry Pi, SolidWorks, and 3D printing, integrating sensors for real-time obstacle detection and navigation

SKILLS

Languages: C++, Java, Python, Javascript, Typescript, HTML/CSS, Rust, Assembly, XAML, MATLAB, SQL

Frameworks & Tools: React, Node.js, Figma, Git, OpenCV, AWS, Angular, Svelte, Numpy, MongoDB

Certifications: Getting Started with Deep Learning with NVIDIA