

# Gabriel Areas Mayorga

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## SKILLS

**Languages:** C++, C, Python, HTML, CSS, JavaScript, Java, TypeScript, ARM-v8 Assembly

**Technologies/Frameworks:** WebGPU, SFML, Git, OpenGL, Leaflet.js, Pygame, Catch2, PyTorch, p5.js

**Tools:** GCC Compiler, Unix command line, GNU Debugger, JetBrains IDEs

**Certifications:** Autodesk Fusion 360 Certified Associate

## EDUCATION

### University Of Florida

Gainesville, FL

*Undergrad, Computer Science*

2027

*Minor in Mathematics*

GPA: 3.51

### Coursework

- COP3530 - Data Structures and Algorithms
- COT3100 - Application of discrete structures
- COP3503 - Programming fundamentals 2
- CDA3101 - Computer Organization
- COT3100 - Applications of Discrete Structures

## PROJECTS

### UF skate spot finder

Oct 2024

- Developed an interactive website to help users discover skate spots around campus, utilizing HTML, CSS, and JavaScript for a responsive and user-friendly interface.
- Integrated Leaflet maps API to provide dynamic, location-based visuals and map functionalities, enhancing user engagement and navigation

### C++ 2D Physics Simulation

June 2024

- Used SFML to create a highly efficient and optimized user interface
- Implemented a collision and gravity system using vector analysis and Cmath

### Game of Life Simulation in WebGPU

Aug 2024

- Leveraged WebGPU's parallel computing capabilities to efficiently simulate cellular automata on the GPU
- Implemented compute shader pipelines to handle parallel cell state updates and rendering

## EXPERIENCE

### Sales Associate, Lowes

May 2024 - Aug 2024

- Fostered and maintained customer connections with an over 80% lead to sale conversion rate
- Leveraged extensive product knowledge to assist customers with tailored solutions, contributing to department sales goals
- Collaborated with team members to ensure a safe and organized work environment, adhering to all company protocols and safety standards

### Morning Operator, Old Navy

June 2023 - Aug 2023

- Stocked, managed and updated inventory
- Aided in the opening of the store as well as the freight shipments
- Manned the cashier and supported customers in store

## LEADERSHIP & COMMUNITY INVOLVEMENT

### VEX Robotics

Aug 2019 - May 2023

#### Elementary Program Mentor

- Mentored elementary school students (grades 3-5) in robotics fundamentals, fostering their interest in STEM education
- Guided teams through the complete robotics development cycle, including design, assembly, and programming
- Provided hands-on instruction in VEX programming fundamentals, enabling students to create functional competition robots