

# Joshua Perez

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## EDUCATION

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**University of Central Florida**, Orlando, FL

**Expected Graduation: 2027**

• *Bachelor of Science in Computer Engineering*

*Relevant Coursework:* Data Structures and Algorithms, Discrete Structures, Object-Oriented Programming, Differential Equations, Advanced Algorithms, Digital Systems, Engineering Leadership, Linear Circuits

*Awards:* Dean's List, Florida Bright Futures Scholarship, Chick-fil-A Remarkable Futures Scholarship

## TECHNICAL SKILLS

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*Computer Languages:* Python, C, Swift, Java, MATLAB, PHP, SQL, HTML, CSS, JavaScript, Verilog

*Tools:* Pandas, Seaborn, NumPy, OpenCV, Ollama, Unsloth, AWS, Flask, React, Tkinter, Vivado, Linux, Git, GitHub

*Skills:* Artificial Intelligence, Computer Vision, Machine Learning, Web Development, Data Analysis

## WORK EXPERIENCE

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**Cocobolo Group**, *Software Development Intern*

**January 2026 - Present**

- Develop and refine user-facing features in a production iOS application using Swift and SwiftUI.
- Debug, test, and optimize application performance to ensure stability and a high-quality user experience.
- Support TestFlight distribution and App Store submission workflows, including build preparation and validation.
- Integrate and maintain Firebase services, including authentication, database functionality, and notifications.

**UCF College of Optics and Photonics**, *Undergraduate Researcher*

**February 2025 - April 2025**

- Supported the development of an AI-assisted knowledge extraction tool for solar energy research.
- Built data pipelines to parse, clean, and structure large datasets of publications, improving processing efficiency.
- Identified key patterns, trends, and findings from PV-related literature to accelerate research synthesis.
- Enhanced the efficiency of research workflows, resulting in a 30% increase in researcher productivity.

## PROJECTS & LEADERSHIP EXPERIENCE

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**SafeStep**, *Independent Project*

**September 2024 - October 2024**

- Built an application leveraging computer vision to detect crosswalks and green pedestrian signals in real-time.
- Implemented a Python Flask backend with OpenCV and the YOLO object detection model to process live video input.
- Developed a React frontend with the Web Speech API to provide hands-free, verbal crossing alerts for accessibility.
- Presented the project at ShellHacks Hackathon to Waymo, Google, and other industry partners.

**Knight Haven**, *Hackathon Project*

**August 2025 - September 2025**

- Designed and prototyped a local social media concept to connect UCF students with the surrounding community.
- Developed a full-stack hackathon prototype using React, Node.js, Express, and Flask to demonstrate core features.
- Implemented user authentication with Auth0 and data modeling with Prisma and SQLite for rapid iteration.
- Built responsive user interfaces using Vite, HTML5, CSS, and modern JavaScript to validate the product idea.

**KnightHacks**, *Member*

**August 2025 - Present**

- Explored modern tools, frameworks, and best practices in collaborative programming environments.
- Collaborated with peers on coding projects and time-based challenges to strengthen software development skills.
- Simulated agile development practices by working with others to meet specific deadlines for projects and scripts.
- Presented project outcomes to peers, improving technical communication and teamwork skills.

**HackUCF**, *Member*

**August 2023 - Present**

- Gained hands-on knowledge of IP, TCP, UDP, and core network protocols.
- Networked and collaborated with peers in system administration and IT security.
- Applied troubleshooting techniques in simulated environments to identify and mitigate threats and vulnerabilities.
- Participated in Capture the Flag and cybersecurity exercises, applying coding to real-world threats.

**Boca Helping Hands**, *Member*

**August 2023 - August 2024**

- Assisted with organizing and distributing meals to individuals and families in need.
- Supported community outreach efforts by engaging with guests in a respectful and welcoming manner.
- Collaborated with volunteers and staff to ensure efficient food service operations.
- Gained firsthand experience in teamwork and service, reinforcing commitment to community support.