# Carlos Catala

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### **EDUCATION**

# University of Central Florida

May 2028

Bachelor of Science in Computer Science, BS | GPA: 3.667

Orlando, FL

Organizations and Affiliations: ColorStack, Society of Hispanic Engineers, KnightHacks

Relevant Coursework: Programming in C, Programming in Python, Discrete Mathematics, Calculus

#### EXPERIENCE

# Game Developer Intern

Jun 2024 – Aug 2024

Crowning Games

Dallas, TX

- Developed new characters for an RPG game, enhancing user experience and receiving positive feedback from 75 players during open-play testing.
- Led weekly **SCRUM** implementation for team task coordination, resulting in **90**% on-time project deliveries and **35**% increase in team productivity.

# Software Engineering Intern

Jun 2023 – Aug 2023

Miami EdTech

Miami, FL

- Led a **4-intern** team researching STEM education kit integration in under-served schools, producing a comprehensive report that informed a proposed outreach program targeting **500+** students.
- Improved the effectiveness of a facial image classifier by increasing the precision from 60 to 80% and recall from 45 to 55%.

# Software Engineering Intern

Jun 2022 – Aug 2022

AvatarBuddy AI

Miami, FL

- Implemented bilingual detection and response capabilities in **AI chatbot**, contributing to a **15**% increase in user satisfaction and interaction quality as measured by user surveys.
- Increased PyTest unit test coverage from 60 to 85% for a chatbot with multilingual support. Developed E2E and integration testing to catch several logical bugs.

### Projects

Spark-A-Hack | TypeScript, Python, React, Selenium, tRPC, Supabase, Gemini API

Oct 2024 – Oct 2024

- Integrated **Gemini AI** and web-scraped **15000+** hackathon projects from Devpost, building backend routes to generate personalized project ideas for hackers.
- Developed a frontend interface to display **AI-generated** ideas based on project data, improving overall project usability and user interaction.

HackTracker | TypeScript, Python, Selenium, React, tRPC, Prisma, Git

Sep 2024 – Sep 2024

- Web-scraped 100+ hackathon events from MLH.io using Selenium, enabling real-time updates and personalized recommendations, resulting in a 25% increase in user engagement.
- Developed a location-based recommendation system using **GeoPY** for geolocation and the **OpenCageData API**, enabling users to find hackathons within their specified travel range, resulting in a **30**% increase in user engagement during the event.

### Night of Knights | Unity, C#, and Git

May 2023 - May 2024

- Spearheaded the implementation of advanced player-enemy interaction systems, resulting in a 30% improvement in game-play dynamics by addressing and optimizing state-machine complexities.
- Achieved **2nd place** in Technology Student Association Florida State Video Game Design Competition 2024, outperforming **35+** teams with innovative physics-based dynamic movement implementation.

# TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C#, C, C++, HTML, CSS, TypeScript

Libraries/Frameworks: React, Tailwind CSS, tRPC, Next.js, Node.js, Selenium, OpenAI API, Gemini API

Developer Tools: Git, Unity, Prisma, Vercel, Docker, Godot, Intellij, VS Code, Supabase