

Carlos Catala

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EDUCATION

University of Central Florida

Bachelor of Science in Computer Science, BS | GPA: 3.7

May 2028

Orlando, FL

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

Relevant Coursework: Programming in C, Discrete Math, Data Structures and Algorithms, Calculus

EXPERIENCE

Software Engineering 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.
- Optimized game performance, reducing load times by **30%** and improving rendering for smoother gameplay.

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 by **20%** and recall by **10%**.
- Developed user-friendly guides to help students and teachers understand and utilize STEM education kits more effectively.

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 by **15%** for a chatbot with multilingual support. Developed E2E and integration testing to catch several logical bugs.
- Refactored parts of the chat-bot backend, improving API response times and making the system more efficient for handling user requests.

PROJECTS

kmodo.org | Typescript, Next Auth, Drizzle, Postgresql, Tailwind, React

Jan 2025 – Present

- Self-hosted infrastructure on a **Linux VPS** with a **CI/CD** script for reliable deployment, uptime, and extensibility.
- Engineered full-stack web applications by integrating responsive user interfaces with scalable backend services, leveraging modern frameworks like **Next.js**, **tRPC**, and **PostgreSQL**.

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.

TECHNICAL SKILLS

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

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

Developer Tools: Git, Unity, Prisma, Vercel, Docker, Postgresql, Coolify, Godot, IntelliJ, VS Code, Supabase