Carlos Martinez

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EDUCATION

University of Central Florida — Orlando, FL
Bachelor of Science, Computer Science — *Aug. 2020 – Dec. 2023*
   GPA: 3.6
   Relevant Coursework: Database Systems (SQL), Programming Languages (JavaScript / TypeScript), Intro to Bioinformatics Alogrithms (Python), AI for Game Programming (Unity / C#)

EXPERIENCE

Frontend Developer - Internship — June. 2023 – Dec. 2023
Tanknicians LLC. — *Lake Park, FL*
- Developed a React-Native based mobile data collection app, replacing manual aquarium service tasks, streamlining admin dashboard analysis, and reducing overall time required for identification and data entry by 25%
- Leveraged React Hook Form and Zod libraries on the web analytics dashboard and mobile app for robust input field validation and user-friendly real-time error messages, ensuring high-quality data capture
- Led the implementation of a collaborative workflow plan using Figma to prototype pages, fostering a comprehensive understanding of team goals and deliverables. This initiative resulted in a reduction of turnaround time for implementing new features by 57%
- Maintained open and effective communication channels with backend developers, facilitating the exchange of ideas, feedback, and updates throughout the entire project lifecycle

Percussion Instructor — Sept. 2021 – Present
Stryke Percussion, Infinity Percussion — *Orlando, FL*
- Co-led a group of 20 to 24 adolescent musicians to perform and execute theatrical compositions of musical pieces
- Analyzed musician's playing strengths and weaknesses to efficiently organize scheduling tasks / goals of rehearsals
- Developed automated solutions for generating tailored practice audio files, enhancing efficiency and customization in musicians' practice sessions

PROJECTS

TravelKnights — *Refactored US trip logging map app with robust technology*   [Demo](#)
- Integrated Supabase to manage user authentication with email / password login, OAuth providers, and secure access permissions to database records with row level security (RLS) policies
- Redesigned the UI components, state logic, and database architecture (NoSQL to SQL) of the application to align with new technologies, thereby enhancing scalability
- Incorporated Redux and Redux Toolkit Query for global state management, enabling efficient and centralized data handling / caching

Firefly — *3D puzzle platformer game*   [Video](#)
- Implemented a Unity audio manager script, effectively controlling audio events and serializing inputs for enhanced workflow efficiency
- Crafted an immersive soundscape with royalty-free music and sound effect samples. Leveraged FMOD Studio to layer, loop, and create 3D attenuation events enhancing gameplay mechanics by guiding player actions through reactive sound cues

SKILLS

Languages: TypeScript, JavaScript, HTML, CSS, SQL, Python, C#
Frameworks: React-Native, TailwindCSS, Nodejs, Express
Libraries: React, Material UI, React Native Paper, React Hook Form, Supabase, Selenium, BeautifulSoup, Matplotlib, Numpy, Pandas
Developer Tools: Git/Github, VS Code, Expo, Jira, Confluence, Excel

ACADEMIC INVOLVEMENT

UCF Robotics Club Member — Aug. 2022 – Dec. 2022
Wall Climber — *Autonomous robot navigates through a re-configurable maze with camera aid*
- Analyzed maze configurations through Scikit-image and Matplotlib libraries to represent paths from image
- Implemented a path finding algorithm (BFS) to find shortest path instructions from start to finish marker