Omar Espinoza

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EDUCATION

University of California, Los Angeles   **Los Angeles, CA**
Bachelor of Arts, Linguistics and Computer Science   September 2020 - August 2024
- **Awards:** Dean's honor list (Winter and Spring quarter 2022), Seal of Biliteracy in Spanish
- **Relevant Coursework:** Computer Organization, Software Construction, Algorithms and Complexity, Discrete Structures, Computer Languages, Automata Theory, Computational Linguistics, Fundamentals of Artificial Intelligence

EXPERIENCE

Experior Laboratories   **Oxnard, CA**
Programming Intern   July 2023 - September 2023
- Developed a universal DLL file integrated into LabVIEW, streamlining hardware communication with all VISA-compliant machines and eliminating the need for individual environments, accelerating testing processes per machine from an 8-hour workday to nearly instant.
- Implemented an automated SQLite database system to enhance data workflows and management, enabling seamless storage and retrieval of instrument data within LabVIEW applications and saving hours of manual input.
- Redesigned code structures into reusable modules across various test setups, improving overall efficiency and longevity.

PROJECTS

Portfolio Website React, TypeScript, Tailwind CSS, DaisyUI
- Conceptualized and orchestrated a fully interactive portfolio website to showcase skills and projects.
- Implemented a theme-switching mechanism with DaisyUI– allowing user-selected themes with persistent local storage.
- Created a mobile-responsive AppBar, and integrated React Router for navigation.
- Designed unique animations, including a custom typewriter effect and interactive SVG designs.
- Enhanced cross-device compatibility and UI scaling logic, delivering a consistent experience across screen sizes.

Instrument Communication and Database Automation C, C++, SQL, VISA
- Engineered a file in C to automate data retrieval from VISA-compliant instruments to eliminate repetitive manual processes.
- Devised a scalable SQLite database system for storing and directing instrument readings, and configurations.
- Optimized processing through recursive directory validation, data handling, and reusable modular functions.

Samson The Game (2D Runner) Javascript, TypeScript, React, Phaser
- Crafted a videogame with sprite-based animations, obstacle generation, collision detection, and a scoring system.
- Illustrated and animated all characters and backgrounds frame-by-frame using Piskel, Illustrator, and Photoshop.
- Composed and mixed original music and sound effects to create an engaging gameplay experience.

BeanPod: Student-Centric Messaging Platform React, Firebase, Git
- Deployed a messaging app for student communication with real-time chat, image sharing, and Google authentication.
- Developed an accessible interface with a dark mode toggle and secure database management using Firebase.

EXTRACURRICULAR ACTIVITIES

Society of LatinX Engineers
- Collaborated to enhance website functionalities, improving user experience for 100+ members.

UCLA Snowteam
- Competed as a snowboarding athlete.

SKILLS & INTERESTS

- **Programming Languages:** C/C++, Python, JavaScript, TypeScript
- **Frontend:** React, HTML/CSS, Tailwind CSS, DaisyUI
- **Backend:** Firebase, MongoDB, SQL
- **Tools:** Adobe Photoshop, Adobe XD, Adobe Illustrator, Google Cloud
- **Languages:** English (native), Spanish (native)
- **Interests**: Machine Learning, Design(UI/UX), Snowboarding, Playing Guitar/Piano, Running, Basketball, Backpacking