Luis Espino, Software Engineer

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Education: University of California, Irvine **June 2022**
B.S. in Computer Science: Visual Computing **GPA: 3.18** (Dean's List UC Irvine • 5 quarters)
Course Work: Software Design • Game Systems and Design • Data Management • Computer Vision & Graphics

Areas of Expertise:

✓Python	✓Node.js	✓SQL	✓WebGL	✓Spanish Biliterate
✓C/C++	✓IonicJS/Angular	✓Linux	✓MatLab	✓WebDev
✓JavaScript	✓A-Frame	✓R	✓OpenCV	✓Agile & DevOps
✓HTML/CSS	✓TypeScript	✓Microsoft Office	✓Point Cloud Library	✓Data Analysis

Work Experience:

Autonomous Vehicle Operator: Zoox **October 2022-Present**
Safely monitored L3 autonomous vehicle testing while skillfully commanding and troubleshooting vehicle software & hardware in real-time using **Linux**. Meticulously recorded and reported substantial vehicle data performance.

Instructor: Juni Learning **April 2022-October 2022**
Taught K-12 students computer science concepts using **Python** through engaging one-on-one remote sessions.

Office Intern: San Mateo County Health Clinic **June 2018-September 2018**
Served as a professional front desk attendant and demonstrated excellence in visit facilitation, personal information updates, and administrative duties, including phone/fax management, and waiting room care.

Projects:

Water Simulator **April 2022-June 2022**
Developed an interactive **WebGL** animation that simulates a water pond with 3D objects that interact with it, featuring realistic lighting and visual effects.

- Introduced visual properties, (**Blinn-Phong, reflection, and fresnel effect**) to enhance realism on the shader.
- Adapted the simulation into a webpage using **JavaScript** and **HTML**, making it available for public interaction.
- Conducted in-depth research on water behavior and implemented equivalent motions in **WebGL**, resulting in an accurate and engaging simulation.

Image Recognition Software **January 2022-February 2022**
Produced an **AI** algorithm that utilizes positive and negative picture samples to learn an object's Histogram of Gradient Orientations, allowing for the identification of objects in images.

- Implemented the algorithm for learning an object's features from sample images.
- Composed the software on a **Jupyter** notebook utilizing **Python**, **Matplotlib**, and **Numpy** libraries, achieving a success rate of 95% in recognizing specific objects in pictures.
- Conducted extensive testing, debugging, and finalization to ensure optimal performance and functionality of the software.

Spotify Browser **February 2022**
Assembled a website that enables real-time searches of Spotify's database, constructing new custom pages based on the retrieved data for each inquiry.

- Constructed engaging **front-end** features using **HTML**, **CSS**, and **Angular** components to display album, track, or artist searches, enhancing user interaction and experience.
- Built the back-end **API** to handle search requests using **Express.js** and the **OAuth protocol**, ensuring efficient and secure data retrieval.

Vaccine Dash (Videogame) Website **September 2021-December 2021**
Collaborated on a single-player adventure horror web game, tasking players with finding vaccines in a dark, covid-ridden hospital.

- Orchestrated game mechanics and sensory elements (sound and graphics), optimizing the player experience.
- Designed and implemented game narrative, enhancing player immersion.
- Presented game in a mock product pitch, showcasing key features and potential for marketability.

Sleep Cycle Tracker (Mobile App) **January 2022**
Developed Data Collection Software that efficiently tracked users' sleeping cycle data.

- Leveraged **UX/UI** principles, (Content Prioritization, Error Prevention, etc.) to develop a user-friendly app.
- Coded the app using **Javascript**/**HTML** and the **Ionic** library to create a high-quality product.
- Rigorously unit-tested the code for **IOS** and **Android** using **Ionic** Lab, ensuring the app's stability and reliability.