

# JUAN SIERRA

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## EDUCATION

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### California State University, Fullerton

- Bachelor of Science in Computer Science
- GPA: 3.78/4.0
- Relevant Coursework: Database & File Structures, Web Front-End Engineering, Web Back-end Engineering, Computer Security.

## TECHNICAL SKILLS

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**Languages** | Php, C, C++, Java, Javascript, Node.js, Python

**Back-End** | MySQL, PostgreSQL, MongoDB, NGINX, Flask, Amazon Web Services, Netlify

**Front-End** | React, React Native, Laravel, Svelte, HTML, CSS, JavaScript, Typescript, Node.js, Bootstrap, Tailwind, Vite, Responsive Design

## WORK EXPERIENCE

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### CSUF | Summer Research Intern

May 2022 - August 2022

*AI And Machine Learning Applications*

Jupyter Notebook | Python | Matpy | OpenCv

- Developed and executed multiple hands-on data science projects using Jupyter Notebook and Python, significantly advancing my proficiency in data analysis and machine learning fundamentals.
- Collaboratively worked with a team to identify and acquire over 10 diverse datasets for targeted research, directly enhancing the depth and breadth of project insights and objectives.
- Designed and executed a Python-based machine learning model on a selected dataset, achieving a 95% accuracy rate in predictive analysis, thereby exceeding project objectives and contributing significantly to the research outcomes.

## PROJECTS

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### Fullstack | Bucket Buddy

April 2023 - December 2023

*A bucket list website*

React | Vite | Psql | AWS | Nginx | JWT

- Deployed a feature-rich bucket list website, leveraging Nginx and Vite for seamless continuous deployment, which reduced deployment times by 40%, streamlining the update process and facilitating easier modifications.
- Implemented robust JWT-based user authentication, that was designed and tested to ensure exclusive access for over 5,000 users, demonstrating the system's robust capacity for data security and user privacy.
- Utilized PostgreSQL to establish a scalable and relational database structure, optimizing data management and contributing to a 30% improvement in query performance and flexibility.
- Leveraged React to develop modular and reusable components, enhancing maintainability and speeding up front-end development by 20%.
- Created multiple interactive pages on the frontend, delivering a dynamic UX and engaging interface for improved user interaction.
- Hosted the API and PostgreSQL database on AWS using services like EC2 and Route 53, establishing a highly reliable and scalable infrastructure, ensuring 99.9% uptime and seamless data management for thousands of global users.

### Fullstack | AI-Enhanced Photo Platform

May 2023 - July 2023

*Film photography album webpage*

Python | Node.js | Nginx | Html | OpenCv

- Developed and launched an advanced web platform that dynamically displays hundreds of images from a designated folder, employing state-of-the-art image recognition technology to accurately detect objects within images
- Designed and implemented a proprietary API that smartly crops and masks detected objects in over 1000 images, enabling precise extraction and manipulation of visual elements using Python and OpenCv.
- Seamlessly integrated the DALL·E API into the platform, processing over 500 masked images weekly to generate AI-driven modifications that significantly enhanced visual content with creative transformations.
- Performed over 100 hours of rigorous testing and debugging to refine the image recognition and modification processes, achieving a 99% accuracy rate in AI-driven enhancements and ensuring high reliability.

### Fullstack | Accounting

March 2024

*Displays bills and invoices*

NestJS | React | TypeScript | Prisma | PostgreSQL

- Spearheaded the development of a cutting-edge full-stack application utilizing Node.js with NestJS and React with TypeScript, showcasing exceptional prowess in modern web technologies and sophisticated API architecture.
- Engineered a robust backend framework incorporating advanced user authentication and Prisma ORM for seamless data handling, significantly boosting system security and operational efficiency. This architecture has enhanced data processing speeds by 50%, leading to a smoother user experience and higher satisfaction rates.
- Crafted an intuitive and aesthetically pleasing user interface following precise design mock-ups, employing React to ensure a seamless and adaptive user experience across a multitude of devices.
- Implemented state-of-the-art state management strategies with Redux and sophisticated error handling techniques, culminating in a highly reliable and user-centric application that consistently delivers top-tier performance. These improvements have reduced error rates by over 60%, ensuring a stable and dependable platform for all users.