Alessandro Sisniegas

Mountain View, CA

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EDUCATION

California State University, Chico

Chico, California

B.S. Computer Science | GPA 3.5/4.0 Major GPA 4.0/4.0

Expected May 2025

Coursework: Data Structures & Algorithms, Discrete Math, Statistics & Probability, Calculus 1-3, Linear Algebra, Object-Oriented Programming, Object-Oriented Database, Operating Systems, Fullstack Web Development

Activities: Association for Computing Machinery (ACM), Peer Tutoring, Stanford Hackathon (7.5% acceptance rate), Hispanic Scholarship Fund (HSF) Scholar, First Generation Hispanic University Student MESA Engineering Program, Peruvian Club

WORK EXPERIENCE

California State University Chico, Computer Science Department

Chico, California

Data Structures & Algorithms, Teacher & Lab Assistant

Aug 2023 - Present

- Assisted multiple classes with 60+ students each in understanding CS concepts, boosting student performance by 20%
- Provided support to 125+ students in utilizing Linux and SSH connections to access ecc-linux machines, alongwith
 configuring environment variables within the .zsh and bash source file

Chevron San Ramon, California

Software Engineer Intern

May 2023 - Aug 2023

- Developed and **deployed** the Customer Insights app, **centralizing** customer data and **replacing** outdated Word systems; significantly enhancing strategic account management and **customer analysis** by configuring and implementing APIs
- Deployed a self-service digital platform for the Safety Data Sheet website to production, creating a solution that streamlined document retrieval and improved operational efficiency for both internal and external users
- Utilized Apex and SQL for backend development and HTML/CSS with JavaScript for frontend implementation

Multiprocessing Muggles Software Engineer Intern

Menlo Park, California

May 2022 - Aug 2022

Developed a MERN based video calling <u>application</u> to support up to 10k+ users while maintaining 93% uptime

Google - Computer Science Summer Institute (CSSI)

Mountain View, California

Apprenticeship

Jun 2021 - Aug 2021

- Worked and developed 13 individual projects using JavaScript concepts as well as product design workshops
- Presented a final collaborative project, including a live demonstration, to Google Engineers and community leaders
- Finished a project-based curriculum in HTML/CSS and JavaScript taught by Google engineers

PROJECTS / RESEARCH

Undergraduate Research: Enhancing Mobile Camera AR Using ORB-SLAM Implementations Aug 2023 - Nov 2023

- Conducted in-depth research on **Monocular Visual Simultaneous Localization and Mapping**, culminating in a published paper detailing enhancements in Augmented Reality through **ORB-SLAM** for mobile applications
- Authored and presented a <u>research paper</u> on algorithms for real-time **Feature Extraction** and **Mapping**, significantly advancing **Depth Perception**, **Loop Closure**, and **Relocolization** in mobile monocular camera apps

Spottr: Parking Lot Detection - Stanford University Hackathon

Dec 2022 - Feb 2023

- Developed in a team of two a **python** app that utilizes advanced **image processing** techniques, such as **adaptive thresholding**, Gaussian blur, and **dilation** to accurately detect parking spot occupancy in real-time
- Utilized the **OpenCV** to optimize the **image processing pipeline** resulting in a significant improvement in the speed up and usability of Spottr, <u>Stanford Awarded</u> "Best Sustainability Project 2023" Runner-up, out of 1700+ participants

SKILLS/AWARDS

Languages: C++, C, Java, Kotlin, Apex, Python, JavaScript, MATLAB

Frameworks: HTML/CSS, React.js, Node.js, Express.js, Peer.js, MySQL, MongoDB, jQuery, Mongoose, REST APIs, Hadoop **Technology:** Linux/Unix, Google Cloud, VM Virtual Box, Oracle Software, Web Design, Git, Github, Bash shell scripting **Awards:** Dean's Honor List, HSF Scholar, Stanford University Hackathon, University Professor Letters of Reccomendation:

Calculus II - Intro to Programming - Programming and Algorithms II - Data Structures & Algorithms