Alessandro Sisniegas

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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, Machine Learning, Networks, Cloud Computing

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- Developed and **deployed** the Customer Insights app, **centralizing** customer data and **replacing** outdated Word systems; significantly enhancing strategic account management and **customer analysis** by configuring and implementing APIs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 **Menlo Park, California**
Software Engineer Intern *May 2022 - Aug 2022*
- Developed a **MERN** based video calling application to support more than **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 research paper 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, Stanford Awarded - "**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, SQL, MongoDB, jQuery, Mongoose, REST APIs, Hadoop
Technology: Linux, Google Cloud, Prometheus, Grafana, Kubernetes, Docker, Unity, Android Studio,VM, Git, Shell Scripting
Awards: Dean's Honor List, HSF Scholar, Stanford University Hackathon, University Professor Letters of Recommendation: Calculus II - Intro to Programming - Programming and Algorithms II - Data Structures & Algorithms