# Andrew Perez

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## EDUCATION

**California State Polytechnic University, Pomona** *Graduated Winter 2024*
*Bachelor of Science | Computer Science*
- Minor in Data Science
- Summa cum laude
- Organizations: SheCodes, Cal Poly SWIFT

## EXPERIENCE AND PROJECTS

**Data Analyst - Medical Clinic Appointment No-show Analysis & Dashboard** *June 2025*
*Independent Project*
- Analyzed **71,000+ real-world appointments** across **14 features** (age, wait time, etc.) using Excel and Power Query to identify key drivers of **patient no-shows**/absences**.**
- Identified key no-show drivers and delivered a timelined proposal projected to **reduce no-shows by 15%, saving $157,000** annually in operational costs.
- Built an **Excel dashboard** with targeted KPIs and story-driven visualizations that highlight trends of key features related to no-shows to support clinic decision-making.

**Data Scientist - Remote Kinematic Analysis for Mobility Scooters** *Spring 2024–Winter 2024*
*Undergraduate Research Capstone*
- Developed **real-time inference safety metrics** using **Python OpenCV** and human pose estimation to enhance safety for mobility scooter users.
- Integrated **Firebase** backend to manage **388K+ video frames** processed through a team-developed **Android Studio app** to identify rider risk factors.
- Collaborated with clinicians and engineers in a **multi-institution team** as part of a $470K+ U.S. NSF-sponsored project to guide accessibility research.

**Machine Learning Engineer - Fake News Detection NLP Model** *Winter 2024*
*Senior Capstone*
- Applied Word2Vec and TF-IDF techniques to a labeled dataset to preprocess and vectorize a dataset of **11,000+ political statements** for truthfulness classification.
- Trained and benchmarked **5 supervised classification models** (Logistic Regression, CNN, SVM, RNN, KNN), achieving up to **27% accuracy** on unseen data.
- Evaluated model performance using precision, recall, and F1-score metrics in Python (**scikit-learn**).

**Photogrammetry Automation Researcher - STARS Research Internship** *Summer 2023*
*Undergraduate Research*
- Optimized 3D model construction pipeline by automating the process of applying a plane onto an object as a **Blender** add-on using **Python**.
- Presented at the Annual CPP Creative Activities & Research Symposium (CARS) to faculty and industry partners.

## HONORS AND AWARDS

**University Honors - Dean's List, President's List** *2020–2024*

**Eagle Scout - Boy Scouts of America, Troop 140 | Class of 2020** *2013–2020*
- Led 20+ volunteers to prepare a local elementary school for natural disasters through education and preparedness planning

## TECHNICAL SKILLS AND INTERESTS

**Languages & Tools:** Python, SQL, Excel, Tableau, PowerBI, Java, JavaScript, HTML, CSS
**Concepts:** Data Analysis, Machine Learning, Computer Vision, NLP, Data Structures
**Coursework:** Big Data Analytics, Machine Learning, Cloud Computing, Software Engineering