Ashley Perez

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EDUCATION

California State Polytechnic University, Pomona - B.S., Aerospace Engineering
August 2018 - May 2022
- 3.34 GPA
- Dean's List Honoree Fall 2020, Fall 2021, President's List Spring 2022
- Undergraduate Missiles, Ballistics, and Rocketry Association Member

EXPERIENCE

Systems Engineering Laboratory - *Team Lead*
January 2021 - May 2021
- Created a Conceptual Design Review (CoDR) of Saturn V with teammates.
- Developed system level requirements, derived requirements, technical performance measures, and a compliance matrix to meet customer needs.
- Implemented trade studies for design analysis using figures of merit to obtain an optimal system architecture.
- Utilized Failure Mode and Effects Analysis (FMEA) by creating risk matrices and risk mitigation waterfalls.

Space Vehicle Design Laboratory - *Payload Lead*
August 2021 - May 2022
- Designed two conceptual spacecraft system architectures with teammates.
- Conducted independent technical research on vehicle subsystems and similar payload instruments to integrate into our design.
- Utilized system engineering principles to reference given Request for Proposal specifications to ensure requirements were being met.
- Created a System Requirements Review, System Definition Review, and Preliminary Design Review (PDR) with teammates and presented them for review.

NASA Student Launch - *Parachutes Team Lead*
July 2021 - May 2022
- Wrote a proposal, a PDR, a Critical Design Review, and a Flight Readiness Review about project approach in accordance with customer specifications.
- Wrote a MATLAB live script to find descent time, kinetic energy, and velocity of our rocket at certain weights.
- Performed black powder tests to ensure parachutes ejected properly and black powder exerted enough force to break the shear pins.

NASA L'SPACE Academy — *Participant*
May 2021 - December 2021
- Wrote, analyzed, and graded proposals following a precise review process.
- Wrote a technical PDR about our mission concept to Mars to locate and analyze possible ice locations to sustain a future human exploration team.
- Earned a certification in Siemens NX and learned how to read and create engineering drawings created in Siemens NX.

RELEVANT COURSEWORK
Aerospace Structures
Avionics
Orbital Mechanics
Rocket Propulsion
Systems Engineering
Thermodynamics

TECHNICAL SKILLS
MATLAB
Siemens NX
Simulink
Soldering
Solidworks
Technical Writing

SOFT SKILLS
Adaptable
Dedicated
Detail Focused
Organized
Self-motivated
Team-oriented
Multitasking

CERTIFICATIONS
Siemens NX CAD
MATLAB Onramp Course
Completion Certificate
Simulink Onramp Course
Completion Certificate

Spanish Fluency