GABRIEL PEREZ

MECHANICAL ENGINEERING STUDENT

CONTACT

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SKILLS

Dynamics/Controls
Controller Design
System Modeling
Vehicle Dynamics
Haptics

Coding
Matlab
Simulink
Java
C++
Python
Arduino
Processing

Product Design
Rapid Prototyping
Solidworks
Inventor
3D Printing
Laser Cutting
Machine Tools

Languages
English (native)
Spanish (native)

ACTIVITIES

Engineers for a Sustainable World
Financial Officer

Los Salseros de Stanford
Financial Officer

Society of Latinx Engineers

EDUCATION

STANFORD UNIVERSITY - GRADUATING SPRING 2021

BS Mechanical Engineering
Concentration: Dynamic Systems and Controls

EXPERIENCE

GENERAL MOTORS

Global Subsystem Leadership Team Intern | Jun - Sep 2020

- Benchmarked competitors' vehicle line up
- Provided leadership team with recommendations regarding upgrades to next generation line up of GM vehicles
- Lead a work group in updating a GM best practice
- Created an interior lighting cost estimator for advanced vehicle development

ENGINEERS FOR A SUSTIANABLE WORLD

Electro-Mechanical Systems Lead | Jan - Aug 2019

- Developed a tele-operated rover for subterranean archaeological exploration
- Prototyped rocker boogie suspension system
- Implemented HTML-based user interface equipped with Raspberry Pi vision system
- Designed teleoperated motor control system

STANFORD NEUROMUSCULAR BIOMECHANICS LAB

Research Intern | Sep 2018 - Jun 2019

- Collected optical motion capture data
- Processed motion capture markers with Cortex for the duration of subject experimentation
- Calculated subject joint angles using inverse kinematics
- Analyzed data to validate accuracy of IMU sensors for tracking upper-body human motion
- Implemented novel sensor fusion techniques to reduce error in motion tracking algorithm

AWARDS

DONALD KENNEDY PUBLIC SERVICE FELLOWSHIP

Stanford Haas Center for Public Service | Mar 2019