Burton Yale, III

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Scan Me!

OBJECTIVE:

Actively seeking an internship position where my skills and expertise can fully be utilized, as well as challenge and expand my current knowledge in the field of Aerospace Engineering.

EDUCATION:

Cal Poly Pomona **Pomona, CA** **September 2015 - December 2020**

Bachelor of Science, Aerospace Engineering (Core GPA: 3.71/4.0 | Overall GPA: 3.59/4.0)

EXPERIENCE:

Cal Poly Pomona **Pomona, CA** **February 2019 – Current**

Research Assistant | JPL MALTO Project

- Adapted JPL's Mission Analysis for Low Thrust Optimization program for new JPL users & college students
- Streamlined user experience to ease the process designing low thrust, multiple leg missions
- Created a system to catalog and organize the ~300 variables that the optimizer utilizes
- Utilized GitHub to manage the concurrent development of features with a team of engineers

Panasonic Avionics **Lake Forest, CA** **June 2019 – August 2019**

Certification Engineering Intern:

- Conducted Structural, Environmental, Smoke/Leak, and Cooling tests and identified failures
- Generated Flammability, Structural, Environmental, Smoke/Leak, and Cooling reports
- Coordinated with various engineering groups (Electrical & Mechanical Engineering) to help evaluate a new set of materials for Line Replacement Units (LRUs) that are compliant with FAA, EASA, and OEM requirements

PROJECTS:

Senior Spacecraft Design | Voyager III Proposal **August 2019 – Current**

- Managing a team through conceptual and preliminary design using systems engineering, via JIRA, in response to an RFP from JPL
- Involved in the multi-disciplinary process of trajectories, heat transfer, structures, controls, etc., optimization

Moon Tour Initial Guess using Machine Learning **August 2019 – Current**

- Designing a data set for teaching and evaluating an algorithm that finds initial guesses for moon tours
- Utilizing reinforced learning, the goal of the project is to generate inputs that are then fed into preliminary trajectory design tools, like MALTO or GMAT, to hasten the process of configuring mission profiles

Friends of Amateur Rocketry 1030 (FAR 1030) Competition Team **September 2018 – June 2019**

- Won 1st Place out of 4 teams, including San Diego State University and University of Central Florida, in competition by launching to 23,749 ft on a student build & researched rocket
- Engineered a mounting system for fins to withstand supersonic conditions
- Manufactured carbon fiber and fiberglass skin for sub-scale and full-scale rocket

Ceres Sample Return **August 2018 – December 2018**

- Through the role as Team Lead, evaluated and analyzed MATLAB results to plan and present a trajectory that was in compliance with mission requirements
- Utilized MATLAB to find an optimal Earth-Mars-Ceres trajectory using porkchop plots & cost functions

MATLAB Dynamics Plotting Toolbox **January 2019 – July 2019**

- Developed an open-source toolbox for MATLAB to support the plotting of vector dynamics problems in order to assist understanding in students new to the subject.

SKILLS:

Coding Languages: MATLAB | Julia | Git | HTML/CSS | LaTeX | Python

Software Experience: MALTO | CAD | AGILE PLM | Microsoft Access | JIRA

Engineering Skills: Software Design | Composites Manufacturing | Systems Engineering