Harrison M. Leece

Westchester, CA 90045 Email: harryleecemail@gmail.com
https://github.com/HarrisonLeece (669)258-1729

Education

Loyola Marymount University, Los Angeles CA **Expected: May 2020**
BSE, Mechanical Engineering **GPA: 3.84**

Work Experience

The Aerospace Corporation, El Segundo, CA, *Propulsion Systems Intern* **March 2019-August 2019**

- Designed and developed the backend and UI for a utility that enables users to rapidly download cross-discipline launch vehicle telemetry for use in launch risk assessment
- Developed a Falcon 9 stage propulsion handbook utilizing markdown, for use during day of launch support and as a new employee quick-start to the Falcon vehicles
- Reverse engineered, and converted Atlas V solid rocket boosters analysis code from MATLAB to Python
- Supported four Falcon 9 launches by analyzing telemetry for anomalous behavior, operating software on Linux machines, and reporting findings on the communication network

Moog Aerospace, Torrance, CA, *Engineering Intern* **May 2018-August 2018**

- Performed various engineering tasks, including processing ECNs and ECPs, and executed solid model changes, drawing changes, tolerance stack up analysis and tool designs
- Investigated failure to find how parts at risk of being scrapped could comply with customer specifications after modification and investigated tolerance stack ups to prevent future failure

LMU Campus Event Operations, Los Angeles CA, *Operations Assistant* **Sept 2016-March 2018**

Great America, Santa Clara, CA, *Deep Water Lifeguard* **May 2017-August 2017**

Engineering Projects

Loyola Marymount Aerospace Research Society (LMARS), *VP/ Lead Engineer* **Jan 2018-Present**

- Designed and modeled an injector and oxidizer feed system capable of delivering desired mass flow of oxidizer to combustion chambers of subscale and full-scale hybrid rocket motors
- Modeled test stand and modular oxidizer feed system capable of measuring thrust curve of subscale motor used for hybrid motor research at LMU
- Led team transition from solid and hybrid technologies to liquid propulsion, including preliminary research, university relations and recruitment of rocketry experts as mentors
- Initial designer and programmer for LMU Rocket Trajectory Simulation code
- Analyzed combustion properties to determine liquid engine requirements
- Designed and analyzed pintle injector currently being manufactured for a 3000lbf Kerosene-LOx engine
- Responsible for engineering management tasks and team leadership, including system architecture and integration, driving task completion and educating new team members

Skills/Other

CAD: SolidWorks, NX; **Code:** MATLAB (Simulink), Java, Python (Data science, Numerical Methods), Excel, Git, NASA CEA, Linux; First aid**; Interim secret clearance;**