THOMAS CHESTER

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EDUCATION

Arizona State University — Expected Graduation: May 2019
Ira A. Fulton School of Engineering — GPA: 3.3 out of 4.0
B.S.E. Mechanical Engineering — Dean's List Spring 2017

EXPERIENCE

Masten Space Systems — Fall 2017
Engineering Intern - Mojave, CA

- Gimbal development and analysis for the Broadsword 25,000lbf 3D-Printed methalox dual expander cycle engine
- Ground Support for test operations such as Xodiac flights and Broadsword hot fires/cold flows; duties include cryogenic propellant loading, test equipment setup, vehicle inspections, and on-site repairs
- Test stand development for an electronic pump motor liquid nitrogen cooling jacket
- In-house software development for gimbal and injector design

Orbital ATK — Summer 2017
Senior Engineering Intern - Promontory, UT

- Materials & Processes Design Engineering department in the Propulsion Systems Division: solid rocket booster development for NASA's Space Launch System
- Developed and tested the propellant liner and insulation system's relevant properties and characteristics
- Material characterization and analysis, engineering test plans & reports, Digital Image Correlation and Structured Light work, engineering test performance & evaluation, and solid modeling with NX

Qualastat Electronics — Summer 2016
Intern - Chandler, AZ

- Strength tested fiber optic cables, used SolidWorks to design and 3D print cable bend outlines, assisted in the optimization of the manufacturing process, and learned the mechanical design aspect of the cables

LEADERSHIP & ACTIVITIES

Daedalus Astronautics ASU — August 2014 - Present
Liquids Team Lead

- Leading a team on the design and build of a liquid rocket engine capable of hot fire test operations by Spring 2018
- Formerly led a team of 8 members on different projects focused on the testing and development of solid propellant
- Organized and led propellant strand burning and mixing in preparation for live static test fires
- Participated in multiple team-built competition rocket launches and hybrid engine research projects

Fulton Undergraduate Research Initiative — August 2016 - May 2017
Undergraduate Researcher

- University-sponsored research project focused on developing a sounding rocket to record data on fin flutter in order to determine the ideal fin geometry for reducing flutter
- Worked alongside Daedalus Astronautics to develop experimental rocket motors for the test flights

SKILLS

Software/Languages	MATLAB, NX, SolidWorks, Python, ANSYS, Excel VBA, HTML
Hand Tools/Machine Shop	Mill, lathe, 3D printing, laser cutting, band saw, welding, soldering