

# Alic Brigham

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US Citizen

## Education

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**The University of Tennessee – Knoxville, TN**

**August 2014 – December 2018**

- Bachelor of Science in Aerospace Engineering
- The American Institute of Aeronautics and Astronautics (AIAA)

**2015 – Present**

## Experience

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**Costco Wholesale, Front End Employee**

**June 2018 – Present**

- Handled intense and high traffic situations for long periods of time while maintaining urgency.
- Exercised the ability to cross-train in order to fulfill the needs of the company at any moment.
- Demonstrated an ability to clearly communicate with frustrated members and assist with complex membership questions

**Dicks Sporting Goods, Sales Associate**

**May 2015 – August 2015, December 2015, May 2016 – August 2016**

- Handled heavy customer traffic in high stress situations while maintaining company goals and customer satisfaction.
- Provide flexible support throughout many positions in the store while maintaining an efficient and successful overall sales objective.
- Utilized creative sense and spare time to better the store through constant improvement of shelving displays and maintaining a constant customer support.

**Bounds and Gillespie Architects, General Assistant**

**August 2012 – July 2014**

- Responsible for handling, organizing and creating professional set presentations of drawings that were used by the firm and engineers working on each job.
- Responsible for organizing and creating spec books that were provided with sets.
- Developed understanding of how small companies communicate between architects and engineers and learned about the compromises that must be made to ensure each party achieved its goals.

## Activities and Relevant Coursework

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**2017 Senior Design Project, Junior Volunteer**

**April 2017 – July 2017**

- Designed, built, and applied a functioning insulation system on the liquid oxygen pipes to prevent the boil off from the oxygen as it moved from the oxygen tank to the engine tank.
- Participated in application of several changes made to the thrust stand such as: increasing the pipe diameter to decrease fill time, analyzing and deciding that a specific flow valve was obscuring the flow, and ensuring that the release valves were hung in such a way that the gaseous oxygen and fuel wouldn't build up in the top of the overhang to ensure safety.

**2018 Senior Design Project, Team Leader**

**October 2017 – May 2018**

- Independently designing and printing multiple 3-D matrix structures infused and filled with pulverized experimental fuels to be test fired.
- Installation and calibration of force and pressure sensors that are used to take data during tests.
- Organized tasks for each member and scheduled test fires.
- Contacted and met with vendors in order to obtain supplies and have parts made such as the vortex injector.
- Increased number of successful tests by more than 400% from the average of previous years.

**2018 AIAA Energy and Propulsion Conference, Team Leader**

**July 2018**

- James Evans Lyne, A. Brigham, R. Savery, K. Karcher, J. Pyron, L. Adams, G. Reagan, H. Furches, D. Sola, L. Melendez, and C. Keck, (2018) "The Use of a 3-D Printed, Polymer Matrix Containing Pulverized Fuel in a Hybrid Rocket" *Research Gate* DOI: 10.2514/6.2018-4597
- Participated in poster presentation in which the team engaged individuals from around the globe about technical aspects of the research.

## Skills and Qualifications

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- AutoCAD
- Inventor
- MATLAB
- Solidworks
- Cryogenics
- 3D Printing