Joshua Grosserhode

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Education

Oregon State University, Corvallis, OR

September 2013 - June 2017

Bachelor of Science in Mechanical Engineering Minor in Aerospace Engineering GPA: 3.56

Senior Design Project: 30,000 ft. Sounding Rocket, Payload Subteam for Spaceport America, Intercollegiate Rocketry Competition

- Designed and built an autonomously guided glider that deployed from the rocket as a payload
- Analyzed aerodynamics and stability of the glider when designing the wing and tail
- Manufactured composite Kevlar fuselage and carbon fiber lifting surfaces
- Fabricated mounts for internal electrical components using additive manufacturing
- Earned Sportsmanship award with Oregon State team and was first team to launch due to planning and preparation
- Collaborated with mechanical, electrical, and computer science engineering students
- Performed geometric dimensioning and tolerancing (GD&T) on the propulsion subteam's pressure chamber

Relevant Coursework

- Space Systems (orbital mechanics, rocket and satellite propulsion, satellite dynamics)
- Aerospace Applications (aerodynamics, flight stability, and aircraft propulsion)
- Aero Vehicle Design (structure analysis, composite applications, and wind tunnel testing)
- Mechanical Vibrations (vibrational responses of multiple degree of freedom and continuous systems)
- Geometric Dimensioning & Tolerancing (datum and surface features, and stacking tolerances)

Software Skills

SolidWorks • ANSYS • MATLAB • Mathcad • Microsoft Office

Experience

NuScale Power, Corvallis, OR

June 2016 - June 2017

Mechanical Engineer Intern

- Estimated leak rates for emergency cooling valves and deformation of helical pipes in reactor vessel
- Conducted stress analyses of pipe supports, nozzles, and vessels using ANSYS and hand calculations
- Generated efficient meshes of complex pressure vessel heads that had several protruding nozzles
- Wrote technical documents explaining calculations following ASME and company procedures

Center for Applied Systems and Software, Corvallis, OR

October 2015 - May 2016

Test Engineer

- Conducted tests determining interoperability of commercially used network transceivers and switches
- Wrote instructions for recreating bugs in software and faults in hardware

Heuberger Construction, Hood River, OR

Seasonal 2013 - 2015

Construction Worker

- Constructed and remodeled homes, including foundations, framing, and siding
- · Independently followed and implemented blueprints