

Robert S. Hutton

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I am a mechanical engineer that enjoys solving problems by utilizing first principles

EDUCATION

Master of Science in Mechanical Engineering

University of Nevada, Reno — GPA: 3.70

Expected May 2023

Reno, Nevada

- Thesis topic: Buckling and wrinkling in thin, elastic plates and shells

Bachelor of Science in Mechanical Engineering

University of Nevada, Reno — GPA: 3.68

May 2017 – May 2021

Reno, Nevada

- Research Topic: Crumple dynamics of localized elastic excitations

PROFESSIONAL EXPERIENCE

Graduate Research and Teaching Assistant

Part-time, University of Nevada, Reno

May 2021 – Present

Reno, Nevada

- Conduct experiments related to buckling, wrinkling, and multi-stability of thin, elastic plates and shells
- Sole conductor of design, production, and maintenance of testing apparatus and controllers for group laboratory experiments
- Filming and documentation with a high-speed camera, and subsequent analysis of data and footage using MATLAB
- Teaching assistant for undergraduate courses including capstone and senior level engineering electives

Mechanical Engineer / Mechanical Engineering Intern

Part-time, Probing Solutions, Inc.

May 2015 – Jan 2022

Carson City, Nevada

- Designed, modeled, and manufactured parts and general product improvements for probe stations and manipulators to be used for precision measurements and data collection in semiconductor fabrication plants
- Updated wiring diagrams of systems and controllers
- Solved system water hammer and resonance issues related to water circulation through surfaces viewed under microscopes, reducing field repair calls in 2020 by approximately 20%
- Traveled to production machines at customer locations to install hot-fixes and improvements in situ

Aviation Resource Manager (1C052)

United States Air Force, Nevada Air National Guard

Jan 2016 – Jan 2022

Reno, Nevada

- Provided direct logistics support for the stateside efforts of the Nevada Air National Guard and the war-fighting efforts of the United States Air Force
- Served as a base level component directly supporting firefighting aircraft and as a representative for the National Interagency Fire Center at the Air Expeditionary Group in Boise, ID
- Deployed in support of Operations Freedom's Sentinel and Inherent Resolve during counter-terrorism efforts on behalf of the United States Air Force during 2018-2019
- COMSEC officer directly responsible for secure and proper handling, accounting, and destruction of cryptographic material

TECHNICAL SKILLS

Computer-aided design and manufacturing: SolidWorks, Autodesk Fusion 360, Ultimaker Cura, GD&T proficiency

Prototyping and production: Manual mill and lathe, CNC mill and lathe (limited), 3D printing, TIG and MIG welding, plasma and laser cutting, sand-blasting

Programming and website development: Python, MATLAB, HTML5 and CSS3, MySQL, PHP, JavaScript

Productivity: LaTeX, Microsoft Office, Adobe Creative Cloud

CERTIFICATIONS AND PROFESSIONAL DEVELOPMENT

Private Aircraft Pilot

Issued October 2020

- Private pilot with class rating of airplane, single-engine, land (ASEL) through the Federal Aviation Administration (FAA)

Dassault Systems CSWA certification

Issued Oct 2019

- Certified SolidWorks associate, skillset tested and verified to be congruent with standards set by Dassault Systems