

JAMES P. WILLIAMS

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OBJECTIVE

To obtain a full-time position with the opportunity to utilize my experience to be of service.

EDUCATION

University of Central Florida

2007–Fall 2014

B.S, Mechanical Engineering

Fall 2015–Spring 2018 (expected)

M.S, Mechanical Engineering

Michigan Institute of Aeronautics

Received a Federal Aviation Administration Airframe and Powerplant Mechanic license.

3.5/4.0 GPA

EXPERIENCE

Graduate Teaching Assistant

University of Central Florida/Department of Mechanical and Aerospace Engineering

Orlando, Florida

January 2015–Present

- Taught several lab sections of the course EML 4301C, Mechanical Systems Laboratory
- Facilitated the students lab experiments
- Graded homework and lab reports for 160 students
- Worked with the professor to plan and conduct relevant experiments pertaining to the study of mechanical engineering

Mechanics of Materials Research Assistant

University of Central Florida/Mechanics of Materials Research Group

Orlando, Florida

August 2009– September 2012 – January 2014–Present

- Designed and conducted various mechanical tests in order to characterize the mechanical properties of materials. Including materials for aerospace systems.
- Performed micro-hardness testing and metallographic analysis (microscopy)
- Prepared metallographic samples.
- Developed materials characterization database for advanced high temperature aerospace alloys including (Inconel 718, Inconel 617 and Ti-6242).
- Recorded and analyzed test data of material and process testing.
- Wrote technical reports.
- Designed test fixtures using 3D modeling (Solidworks) software.

Research and Development Engineer

Applied Engineering and Integration.

Wixom, MI

November 2012– November 2013

- Characterized weld/joint performance through mechanical and metallographic analysis of materials including advanced high strength steel, aluminum alloys, magnesium alloys, and composites.
- Developed test procedures and designed test fixtures.
- Performed micro-hardness testing and metallographic analysis (microscopy).
- Prepared technical presentations and reports.
- Coordinated with technology partners to deliver solutions for customers.

Inside Sales

Technical Sales and Applications

Oviedo, Florida

January 2007– December 2008

- Inside sales duties including selling products to customers, maintaining and setting pricing of store products, marketing and customer relations.
- Developed strategic methods for advancing into new markets.

PUBLICATIONS AND PRESENTATIONS

Williams, J. and Gordon, A. “Constitutive Modeling of a Glass Fiber-Reinforced PTFE Gasketed-Joint Under a Re-Torque”, Characterization of Minerals, Metals, and Materials, 2015 TMS Annual Meeting & Exhibition, Orlando, FL March 15-19th 2015.

Williams, J. and Gordon, A., “Analytical Modeling of the Mechanics of Re-Torque,” ASME Student Professional Development Conference Old Guard Oral Presentation, University of Central Florida, Orlando, FL, April 06-08, 2011.

RELEVANT SKILLS

Computer Skills

- Microsoft Office (Excel, Power Point and Word)
- Auto CAD
- Solidworks
- Mathcad

Awards

3rd Place- Williams, J. and Gordon, A., “Analytical Modeling of the Mechanics of Re-Torque,” ASME Student Professional Development Conference Old Guard Oral Presentation, University of Central Florida, Orlando, FL, April 06-08, 2011.