

Michael Sedlack

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Objective

To gain experience and build a broad range of technical and interpersonal skills for my academic and professional development.

Education

UNIVERSITY OF CENTRAL FLORIDA | 2018 (EXPECTED)

MAJORS: ELECTRICAL ENGINEERING & PHYSICS; MINORS: BUSINESS & MATHEMATICS

GPA: 3.27 (FALL 2015)

Research Experience

- Led a team that developed a LabVIEW VI that was used to control an entire testing platform and process/record input data collected from several sensors on the platform
- Was part of a team that developed a test platform for measuring combined (simultaneous) mechanical, thermal, and acoustic stress and fatigue on a slender, bi-clamped sample
- Co-designed and fabricated a power control system for low-cycle fatigue equipment
- Co-designed a signal conditioning system for sensitive sensor inputs

Publications & Presentations

- Sedlack, M., Jasmin, A., Wilcox, R., Lavandera, P., Gordon, A.P., Penmetsa, R., "Design and Evaluation of a Test Device for Thermal-Acoustical-Mechanical Fatigue Experiments" AIAA SciTech, Orlando, Florida, January 5th-9th, 2015
- Jasmin, A., Sedlack, M., Lavandera, P., Gordon, A.P., Penmetsa, R., "Design and Assessment of a Test Platform for Advanced Simulation of Cyclic Thermo-Acousto-Mechanical Loading" TMS Annual Meeting and Exhibition, March 16th-20th, 2015
- Sedlack, M., Bouchenot, T., Jasmin, A., Keasey, M., Gordon, A.P., Penmetsa, R., "Prediction and Characterization of Thermomechanical Buckling Fatigue in Combined Extreme Environments" AIAA SciTech, San Diego, California, January 4th-8th, (accepted) 2016

Skills & Abilities

- Proficient with Microsoft Office (including Visio)
- Proficient with National Instruments LabVIEW
- Experienced with MathWorks MATLAB
- Experienced with PTC Mathcad
- Experienced with Wolfram Mathematica
- Proficient in various lab skills including soldering as well as the use of various test instruments such as oscilloscopes, multimeters, and function generators

Design Experience

- Worked with a partner to design and fabricate a test platform for measuring shear and moments on a specimen using LabVIEW (EGN3310 IDEAS Competition)
- Designed an apparatus for high-cycle fatigue using consumer-grade acoustic equipment
- Hand-built an AA964 Vibrolux Reverb amplifier to original specifications using all vintage-correct components and construction techniques

Awards & Honors

- First Year Academic Scholar
- Made Dean's List Twice (Fall 2013 and Spring 2014)
- Made President's Honor Roll (Spring 2015)
- Bright Futures Florida Academic Scholar
- Won The IDEAS Engineering Competition

Work Experience

Wolfe Guitars – Jupiter, FL - July 2010 – August 2013

Sales associate, guitar tech, tube-amp tech, PLEK (fret-milling CNC machine) operator

During this time, I gained experience with a variety of things, mainly having to do with the various aspects of business. Some of the highlights are:

- Sales - working with people both in-person and on the phone
- Communication – speaking and writing in such a way as to quickly and easily convey information
- Technical – I became more comfortable working with a variety of tools, and gained additional troubleshooting skills

The Scholarly Edge – Orlando, FL - Summer 2015 – Present

SAT Preparation Instructor, AP Chemistry/Physics/Calculus Tutor

References

- Dr. Ali Gordon (Research Director)
 - Ali.Gordon@ucf.edu
 - (407) 823-4986
- Dr. Elena Flitsiyan (Physics Professor)
 - Elena.Flitsiyan@ucf.edu
- Jay Wolfe (Former Employer)
 - wolfeguitars@comcast.net
 - (561)746-2209