Eric Smith

Mechanical Engineering

Contact Information:

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Qualifications:

Solid understanding of experimental practices and the ability to create LabVIEW data acquisition code.
Expansive use of MATLAB to solve linear and nonlinear dynamic and vibration problems.
Introductory knowledge of ANSYS workbench and the Finite Element Analysis (FEA) process.
Skilled at creating technical documents and presentations for journal and conference publications.
Strong desire to combine analytical and experimental practices to generate meaningful changes.

Work Experience And Accomplishments:

Georgia Institute of Technology, Atlanta, GA.
Head Graduate Teaching Assistant (GTA)
May 2007 –December 2012, August 2013 – December 2013; Teaching Assistant January 2014-Present

- Designed new laboratory experiments for Acoustics, Controls, Signal Processing and Vibrations.
- Assisted in the process of acquiring new hardware and software: Laser Doppler Vibrometers (Polytec), Accelerometers (PCB), LabVIEW, National Instruments myRio and CDAQ.
- Helped maintain and fix laboratory experimental devices.
- Coded LabVIEW Virtual Instruments (VIs) for experimentation and MATLAB code for analysis.
- Created Microsoft PowerPoint Presentations to provide overview of lab theory to students.
- Created Microsoft Word Documents to provide essential procedure to students.
- Managed teaching assistant scheduling, work load and delivered grading advice.
- Interacted with students and teaching assistants to resolve conflicts.
- Evaluated student and teaching assistance performance via graded materials.
- Awarded “Outstanding Graduate Teaching Assistant” by the Woodruff School of Mechanical Engineering in 2010.
- Recognized as a finalist by the Center for the Enhancement of Teaching and Learning in 2010 for outstanding Teaching Assistant performance.

Georgia Institute of Technology, Atlanta, GA.
Laboratory Redesign Consultant
October 2015 – Present

- Worked in conjunction with professors and other teaching assistants to redesign senior level lab.
- Thoroughly analyzed current shortcomings and constraints on laboratory experience.
- Helped generate solutions and created PowerPoint Presentations to showcase ideas.

Georgia Institute of Technology, Atlanta, GA.
President’s Undergraduate Research Award and Air Products Award Reviewer
April 2013 - Present

- Evaluated and provided guidance to undergraduate researchers in mechanical engineering.
- Interacted with undergraduate students during poster sessions - judged their presentation and research results.
- Provided feedback to GaTech on funding related to undergraduate projects.

Impact Technologies LLC, Rochester, NY. (Acquired by Sikorsky)
Cooperative Education Student (Co-Op) – Project Engineer
November 2004 – May 2005

- Wrote MATLAB code to analyze aircraft engine vibration.

- Performed test machine experimentation and analyzed bearing fault diagnostics.
- Utilized OROS for modal testing on jet turbines.
- Created a LabVIEW interface and data analysis program for power plant turbines.

Everest VIT, Skaneateles Falls, NY (Acquired by General Electric)
Cooperative Education Student (Co-Op) – Project Engineer
December 2003 – May 2004

- Performed and updated testing procedures on video borescopes.
- Created Microsoft Excel documents to calculate part life and how to modify existing parts for longer life.
- Utilized machine shop to create test fixtures.
- Worked with assembly line to evaluate ways to improve productivity.

Education:

Bachelor of Science in Mechanical Engineering - 2006
Rochester Institute of Technology, Rochester, NY
Master of Science in Mechanical Engineering – 2008
Georgia Institute of Technology, Atlanta, GA
Doctor of Philosophy in Mechanical Engineering – Expected 2016
Georgia Institute of Technology, Atlanta, GA

Publications :

Smith, E. and Ferri, A.A., 2013, "Shock Isolation In Finite-Length Dimer Chains With Linear, Cubic And Hertzian Spring Interactions," Proceedings, ASME 2013 IDETC Conference, Portland, OR, Aug. 4-7.

Smith, E. and Ferri, A.A., 2015, "Shock and Vibration Isolation Using Internally Rotating Masses," Proceedings, ASME 2015 IDETC Conference, Boston, MA, Aug. 2-5

Smith, E. and Ferri, A.A., 2015, "Shock Isolation Through Translational-to-Rotational Energy Transference," Proceedings, ASME 2015 IDETC Conference, Boston, MA, Aug. 2-5.

Smith, E. and Ferri, A.A., 2015, "Vibration Isolation From Harmonic Disturbances Through Use of Internally Rotating Masses," Proceedings, ASME 2015 IMECE Conference, Houston, TX, Nov. 13-19.

Smith, E. and Ferri, A.A., 2013, "Shock Isolation In Finite-Length Dimer Chains With Linear, Cubic And Hertzian Spring Interactions," Submitted to the ASME *Journal of Vibration and Acoustics*.