

Thomas C. Spalding

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Bachelors in Electrical Engineering, University of Central Florida

Experience

College Work Experience Program (C.W.E.P.) Participant at Lockheed Martin Mission Systems & Training (MST), UCF and Test Engineer at Lockheed Martin Mission Systems & Training (MST), DCR Workforce

Junior metrologist, and primary website and database admin for the Calibration and Metrology lab. Responsible for developing programs for a wide range of calibration and metrological instruments, and wrote a series of web tools for the lab's internal site and database.

Position: C.W.E.P. Student (UCF)
Dates: 04-06-'10 to 01-31-'13
Position: Test Engineer I (DCR)
Dates: 03-04-'13 to 07-31-'13
Supervisor: Ray Minchin

Undergraduate Research Assistant at the Advanced Materials Processing and Analysis Center (AMPAC) & Mechanical, Materials and Aerospace Engineering (MMAE), UCF

Assisted PhD Students and performed own experiments on topics such as solderability studies towards lead-free alloys, modifying surface chemistry of pozzolaneous coal combustion products for new concretes, and using nano-dopants to tailor burn rates of solid rocket propellant. Built a catalytic reactor for mass spectrometry.

Position: Undergrad Research Assistant
Dates: 9-18-'06 to 8-08-'08
Supervisor: Sudipta Seal

Current Education

Master of Science in Computer Science
San Francisco State University, CA

Bachelors in Electrical Engineering
UCF College of Engineering and Computer Science, Orlando, FL
Graduation Date: December, 2012

Literature

- D. Reid, A. Russo, R. Carro, M. Stephens, A. LePage, **T. Spalding**, E. Peterson and S. Seal, "Nanoscale additives tailor energetic reactions," Nanoletters, 7(7), 2157-2161, 2007.
- A. Adu, K. Mendoza, **T. Spalding**, F. Trinh, "Electronic Music Interaction: modern and alternative interactions with music devices," EECS UCF, 2012

International Studies and Research

- Instytut Odlewnictwa (Foundry Research Institute), Krakow, Poland - Summer of '08
Studies and Research: The effects of materials surface chemistry on wettability and spreading of liquid Sn on Ni substrates
- Warsaw University, Warsaw, Poland - Summer of '07
Studies and Research: Titania mixed systems for catalytic application
- Florida State University London Study Centre, London, England - Summer of '06
Studies: Contemporary Literature, Western Humanities and Introduction to Shakespeare

Senior Design at UCF

A theremin, pitch-to-MIDI converter, and an expandable OSC grid controller were designed as a study on the themes of iterative design, learning through direct feedback, and creating a virtuosic experience with ease.

See <http://eeecs.ucf.edu/seniordesign/su2012fa2012/g01>

Software and Design Related Skills

ASP, Assembly (68HC11), C/C++, CAD, Crystal Reports, CSS, Eagle, Embedded Systems, Fritzing, Git, High Frequency Structural Simulator (HFSS), HTML, Java, JavaScript, LabWindows/CVI, Less/Sass, Lua/Löve Lua, LTspice, MAX/MSP, MetCal/MetTrack, Microcontrollers, Multisim, OSC implementation, PCB design, Processing, Pure Data, Pelican, Python, Ruby, SharePoint, SolidWorks, SQL, Verilog, Xilinx

School Involvement: SFSU ACM Historian, Friends of the Greenhouse