

# Thomas Spalding

tommycs@mail.sfsu.edu | 707.376.8630 | <https://github.com/digitalvapor>

## EDUCATION

### MS IN COMPUTER SCIENCE

SAN FRANCISCO STATE UNIVERSITY  
Expected Dec 2016 | San Francisco, CA  
College of Science and Engineering

### BS IN ELECTRICAL ENGINEERING

UNIVERSITY OF CENTRAL FLORIDA  
Graduation Date Dec 2012 | Orlando, FL  
College of Engineering and Computer Science

## 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

## SENIOR DESIGN

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

[eeecs.ucf.edu/seniordesign/su2012fa2012/g01](http://eeecs.ucf.edu/seniordesign/su2012fa2012/g01)

## SKILLS

### PROGRAMMING

Android • ASP • Assembly (68HC11) • BASH • C/C++ • CSS • Git • HTML • Java • Javascript/jQuery • LabWindows/CVI • Less/Sass • Lua/Löve Lua • MySQL • Processing • Python

### DESIGN

CAD • Eagle • Fritzing • KiCad • LTspice • Multisim • PCB Design

### OTHER

Crystal Reports • Embedded Systems • High Frequency Structural Simulator (HFSS) •  $\text{\LaTeX}$  • MAX/MSP • MetCal/MetTrack • Microcontrollers • OSC implementation

## EXPERIENCE

### EDTECH | APP CREATION, 2D & 3D VIDEO GAME INSTRUCTOR

Jun 5 – Jul 25 2014 | San Francisco, CA

- Introduce kids to computer science via Raspberry Pi, Scratch, Alice3 and App Inventor. Advanced kids were introduced to Python, Lua/Löve Lua, and Java for Android.

### EDMO IN THE PARK | NATURE COUNSELOR

August 2014 | San Francisco, CA

- Incorporate art, science, history, and geography into a positive nature experience for kids.

### LOCKHEED MARTIN | JUNIOR METROLOGIST AND TEST ENGR

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

Apr 6 2010 – Jan 31 2013 | Orlando, FL

Test Engineer at Lockheed Martin Mission Systems & Training (MST), DCR

Mar 4 2013 – Jul 31 2013 | Orlando, FL

- 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.

### AMPAC & MMAE, UCF | UNDERGRADUATE RESEARCH ASSISTANT

Undergraduate Research Assistant at the Advanced Materials Processing and Analysis Center (AMPAC) &

Mechanical, Materials and Aerospace Engineering (MMAE), UCF

Sep 18 2006 – Aug 8 2008 | Orlando, FL

- 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.

## INTERNATIONAL STUDIES AND RESEARCH

### INSTYTUT ODLEWNICTWA (FOUNDRY RESEARCH INSTITUTE)

Summer of '08 | Krakow, Poland

Studies and Research: The effects of materials surface chemistry on wettability and spreading of liquid Sn on Ni substrates.

### WARSAW UNIVERSITY

Summer of '07 | Warsaw, Poland

Studies and Research: Titania mixed systems for catalytic application.

### FLORIDA STATE UNIVERSITY LONDON STUDY CENTRE

Summer of '06 | London, England

Studies: Contemporary Literature, Western Humanities and Introduction to Shakespeare

## SCHOOL INVOLVEMENT

2014	officer	Association for Computing Machinery at SFSU
2014	volunteer	Friends of the Greenhouse at SFSU