Matthew Feldman

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EDUCATION

University of Florida, Gainesville, FL December 2014
Bachelor of Science in Electrical Engineering
Minor in Physics, concentration in Japanese Language
GPA: 3.96/4.0
Financed 100% of college tuition with merit-based scholarships

INDUSTRY

Avionics Integration Intern, Hawthorne CA August 2012 – December 2012 and May 2014 – August 2014
SpaceX, Hawthorne, CA

- Developed Altium extensions in C# and Python with unsupervised learning algorithms for streamlining the avionics design process
- Worked on thermal imaging systems on Falcon 9 Reusable to improve reliability and reduce cost
- Designed harnesses and data acquisition circuit boards for flight on Falcon 9 Reusable and Dragon
- Compiled data on various electronic interfaces for all current and future satellite missions
- Developed and qualified proprietary avionics systems to improve safety and reliability of all future Falcon 9 and Falcon Heavy flights, using Matlab, C++, and Bash

Sponsored Engineer, Integrated Product and Process Design Program August 2013 – May 2014
Stryker Sustainability Solutions at University of Florida, Gainesville, FL

- Lead and worked in a multidisciplinary team of engineers
- Designed, manufactured, and tested a C-based embedded system and fixture to rapidly test the integrity of the circuitry inside a particular ultrasonic scalpel surgery tool.

RESEARCH

Optics in the City of Light REU Researcher, Biophotonics Group May 2013 – July 2013
Institut d'Optique, Palaiseau, France

- Constructed 3-dimension Full-Field Optical Coherence Tomography setup for cell-level biological studies
- Characterized spherical aberration and image quality degradation as a function of conjugation position by programming LabVIEW control system and Matlab data-processing script

NanoJapan REU Researcher, Ajayan Lab May 2012 – August 2012
Rice University, Houston, TX

- Enhanced batteries and supercapacitors by creating new nanostructures and graphene coating using chemical vapor deposition
- Grew and transferred graphene samples for international collaboration projects on graphene device

REU Researcher, Materials Research Institute May 2011 – August 2011
Pennsylvania State University, State College, PA

- Designed and fabricated tunable microchip coils, using CST Microwave Studio to assess model feasibility and a Vector Network Analyzers for hardware testing.
- Scanned small-scale phantoms using an MRI machine and newly-designed 600MHz microchips to improve tools available to biologists and antenna designers, with results published in yearly journal

LEADERSHIP

Founder, "Five for Tanzania" Charity Fundraiser for Rhotia Valley, Tanzania September 2010 - Present
University of Florida

- Raised $2000 for the Rhotia Valley children's home and $1000 for tsunami victims in Japan during personal "joggling" (running and juggling) world record events.

ACHIEVEMENTS

Commissioned Student Ambassador to Miyazu, Japan for the city of Delray Beach, FL April 2008 – June 2010
Guinness World Record Holder, Fastest 5k while juggling 5 objects May 2011
Guinness World Record Holder, Fastest 400m while juggling 5 objects July 2011
Guinness World Record Holder, Fastest mile while juggling 5 objects July 2012

AFFILIATIONS

Member, IEEE Professional Engineering Society October 2010 – Present
Member, Student Small Satellite Design Club November 2010 – December 2011
Benton Engineering Council Representative, Gator Amateur Radio Club January 2011 – December 2011