Matthew Feldman

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EDUCATION

Bachelor of Science, Electrical Engineering — May 2014
Minor in Physics, concentration in Japanese Language
University of Florida, Gainesville, FL
GPA: 3.96/4.0

ACADEMIA

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

- Constructed 3-dimension Full-Field Optical Coherence Tomography setup to support a cell-level biological study
- 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 — June 2011 – July 2011
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 devices

REU Researcher, Materials Research Institute — June 2011 – July 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

INDUSTRY

Avionics Hardware Development and Integration Intern, SpaceX — August 2012 – August 2014
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 with 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

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 from the publicity of setting the fastest 400m while juggling five balls world record
- Raised $1000 for tsunami victims in Japan from the publicity of setting the fastest 400m while juggling five balls world record

ACHIEVEMENTS

Undergraduate financed 100% of college tuition with merit-based scholarships — August 2010 - present
Guinness World Record Holder, Fastest 400m, mile, and 5k while juggling 5 objects — July 2011 – present
Commissioned Student Ambassador to Miyazu, Japan for the city of Delray Beach, FL — April 2008 – June 2010