Kelly McEachern

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EDUCATION

Bachelor of Science in Electrical Engineering, University of Florida, Gainesville, FL.   Aug '08-May '12
  GPA: 3.92/4.00, Cum Laude
  Awards: Dean's List, Anderson Scholar, Florida Academic Scholar, UF Honors Program Certificate
  Minor: Spanish
  GRE: Q=164, V=163, W=4.5 (Old scale converted scores: Q= 790, V=650)

Master of Science in Electrical Engineering, University of Florida, Gainesville, FL.   Aug '12-present
  GPA: 3.96/4.00

Master of Science in Management, University of Florida, Gainesville, FL.   Aug '13-present
  GPA: 4.00/4.00

Doctor of Philosophy in Electrical Engineering, University of Florida, Gainesville, FL.   Aug '12-present
  Awards: NSF Graduate Research Fellowship, University of Florida Graduate School Fellowship

EXPERIENCE

Research Assistant Univ. of Florida, Interdisciplinary Microsystems Group, Gainesville, FL.   Aug '12-present
- Built and characterized an electrodynamic wireless power transfer system to wirelessly power a small torsional receiver.
- Modeling lumped element model of system using MATLAB Simulink.
- Modeling of mechanical response using COMSOL.

Validation Engineer Co-op Texas Instruments, Dallas, TX.   May '12-Aug '12
- Secured an important customer by testing and delivering over 500 samples in less than a week.
- Developed LabVIEW code to interface with many measurement instruments for testing load switches.
- Created program to automate AC and DC measurements which is customizable for all future load switches produced by TI.

Research Assistant Univ. of Florida, Interdisciplinary Microsystems Group, Gainesville, FL.   Aug '11-May '12
- Characterized a boost converter to be used with an energy harvester to provide stable output power for varying levels of input.

Research Assistant Univ. of Freiburg, Microsystems Dept., Freiburg, Germany.   May '11-Aug '11
- Worked on an electromagnetic energy harvester project.
- Researched commercial solutions for AC/DC power conversion and DC/DC voltage regulation.
- Designed and tested several power circuits to evaluate and compare their efficiencies.
- Interfaced an MSP430 microcontroller with I^2C sensors to retrieve data about room conditions (temperature, humidity, light intensity) and with a low-power I^2C LCD to display said data.
- Evaluated the effectiveness of supercapacitors as backup energy storage for the system.

Research Assistant Univ. of Florida, Interdisciplinary Microsystems Group, Gainesville, FL.   Jan '11-Apr '11
- Evaluated viability of using the difference between ambient temperature above ground and temperature 5 to 15 feet underground to generate enough power to light an LED indefinitely.
- Researched various thermocouples and their specs to find the best one for above application.
- Tested and recorded maximum output of the chosen thermocouples for a wide range of temperature differentials, to come to a conclusion on the practicality of this application.

Electrical Engineering Intern Jabil Circuit, St. Petersburg, FL.   May '10-Aug '10
- Reverse engineered several products to improve their cost and space efficiency.
- Researched soldering processes: solder techniques, and thermocouple setups and types.
- Co-wrote Business Plan and presented it orally to the company Vice President.

LEADERSHIP

President Eta Kappa Nu Electrical Engineering Honor Society   May '11-Aug' 12
- Prioritized tasks and delegated work to other officers to complete them in a timely manner
- Conducted bi-weekly meetings, gaining both interpersonal and communication skills
- Mentored younger candidates and members, offering advice with regard to academic choices

Secretary Eta Kappa Nu Electrical Engineering Honor Society   Aug '10-May '11
- Coordinated social, volunteer, and department-oriented events for members and candidates
- Communicated with national headquarters to offer feedback and stay updated on new efforts

SKILLS

Software MATLAB, FilterPro, PSpice/LTSpice, Quartus, CCS, IAR, AVR Studio, Altium, LabVIEW, C
Hardware TI MSP430, ATMEL ATmega, Altera, oscilloscope, function generator, Keithley SourceMeter