

EDUCATION

- SM, Massachusetts Institute of Technology** June 2009
Electrical Engineering and Computer Science
- Thesis: Adaptive Load Control of Microgrids with Non-dispatchable Generation
 - Focus: Power Systems, Electric Machines, Optimization
 - Developed entrepreneurial business plan for Sloan Energy Ventures class team project
- BS, University of Colorado at Boulder** 2007
Electrical and Computer Engineering (GPA: 3.96)
- Focus: Power Electronics
 - Summa Cum Laude, Dean's List every semester
- Charles University** (Study abroad) Prague, Czech Republic Spring 2006

EMPLOYMENT

- Massachusetts Institute of Technology** 2007-Present
Research Assistant for Prof. James Kirtley, Jr.
- Mathematically modeling wind power generation for use in power grid simulations
 - Investigating frequency-adaptive loads as a means of balancing renewable energy
- Spirae Intern** Summer 2007
Startup company developing renewable and distributed energy solutions
- Analyzed wind turbine power data and discovered a threat to microgrid stability
 - Worked with the InteGrid Lab, a 2MW power grid simulation lab
- Hewlett Packard Intern** Summer 2004, 2005, 2006
Firmware programmer in digital camera R&D
- Highest possible exit evaluation marks
 - Redesigned digital camera calibration process for camera phones
- Tutor** in EE, CS, and math for CU Residence Hall Association 2005
- Outstanding evaluations from pupils

PATENTS / PAPERS

Patents Pending

- Clear Image Using Pixel Voting (US Patent App. 20070092152)
- Cutout Effect for Digital Photographs (US Patent App. 20080100720)
- Systems and Methods for Identifying Camera Sensors (US Patent App. 20080259203)

Papers Published

- Pitfalls of Modeling Wind Power Using Markov Chains, 2009 IEEE PES PSCE

COMMUNITY LEADERSHIP AND INVOLVEMENT

- MIT Energy Club** 2008-Present
Executive Committee Education Chair
- Conceived of and established a process to record and post energy lectures online
 - Boosted high school student engineering interest with lectures on energy via MIT Splash
- MIT Energy Initiative Education Task Force**
- Other Involvement**
- IEEE Student Member
 - Power Globe Forum Member
 - FIRST LEGO League Robotics Coach (3 years)
 - Elementary School Chess Club Founder/Coach (5 years)