

Jaimie Swartz

University of California, Berkeley

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Education

University of California, Berkeley

Berkeley, CA

M.S./Ph.D. in Electrical Engineering

Present

Research interests: power systems, control, and optimization
for better integration of renewable energy

Rutgers University

Piscataway, NJ

B.S. in Electrical and Computer Engineering

2013-17

GPA: 4.0

Summa Cum Laude

Class Ranking: 1/807

Coursework:

Convex Optimization (grad level)

Smart Grids

Control Systems Design

Energy Systems Modeling

Thermodynamics

Electric Energy Conversion

Research Experience

Electric Grid Research Group: 2017-Present

Berkeley, CA

Graduate Student Researcher

Adviser: Dr. Sascha Von Meier

Laboratory for Energy Smart Systems (LESS): 2015-17

Piscataway, NJ

James J. Slade Research Scholar Program

Adviser: Dr. Mohsen Jafari, Chair of Industrial and Systems Eng. Dep.

1. Cyber-Physical Energy Testbed
 - a. Developed a process to size and predict the behavior of a hybrid renewable energy system (comprised of wind, solar PV, and battery storage) that can power a microgrid community year-round
 - b. Presentations:
 - i. Society of Women Engineers Mid-Atlantic Research Poster Competition – 2nd Place
 - ii. Engineering Research Fair, Rutgers
 - iii. Admitted Women in Engineering Day, Rutgers
 - iv. Capstone Senior Design Day, Rutgers
2. Modeling Fuel Cell and Combined Heat and Power Projects
 - a. Analyzed trends of 30 New Jersey Board of Public Utilities FC and CHP projects

Publications

J.Swartz, A. Ghofrani, and M. Jafari, "Sizing Methodology for Combined Renewable Energy Systems," Proc. of IEEE Innovative Smart Grid Technologies Conference, Washington, DC, May 2017

J.Swartz, "Sizing Methodology for Combined Renewable Energy Systems," Rutgers Research Review, Jan 2017

A. Ghofrani, F. Farzan, **J. Swartz**, and M. Jafari, "Cyber Physical Simulation of Energy Smart Communities." Proc. of International Conference on Smart Infrastructure and Construction, UK, Cambridge. pp 663-67. 6 July 2016

Academic Awards

- Berkeley Fellowship 2017
- Excellence Award, Berkeley EECS Department 2017
- Outstanding Engineering Scholar, Rutgers School of Engineering 2017
- James Leroy Potter Award, Rutgers ECE Department 2017
- John B. Smith Award, Rutgers ECE Department 2017
- Academic Excellence Award, Rutgers 2014
- Presidential Scholarship, Rutgers 2013

Work Experience

NJ Governor's School of Engineering and Technology: Apr-July 2017 Piscataway, NJ

Research Coordinator

- Collaborated with faculty and industry professionals to conduct 17 research projects and write 17 research papers with 72 high school students
- 7 papers accepted to the 2017 IEEE MIT Undergraduate Research Technology Conference

General Electric: May-Aug 2016 Pittsburgh, PA

EID Power Conversion Intern, Leadership Team Coordinator

- Designed electrical hardware and software for motor drives that are used in metal industry process lines
- Developed engineering deliverables such as drive data sheets and burden resistor calculations
- Programmed level 1 automation control software for a PLC by stitching I/O and motion failure alarms

First Solar: May-Aug 2015 Bridgewater, NJ

Intern – Project Development Engineering

- Created energy predictions, cost estimates, and energy rate analysis for utility-scale solar plants
- Performed site calculations for DC and AC electrical systems (transformers, inverters, etc.)

iconectiv: Apr-Aug 2014 Piscataway, NJ

Intern - Quality Assurance Engineering

- Implemented an automated regression testing system for a new front-end GUI that manages a telecom routing database

Activities

Berkeley Energy and Resources Collaborative – Co-VP of Energy Summit	2017
Electrical Engineering Graduate Student Assoc. – Lab Rotations Committee	2017
Women in Computer Science and Engineering – Member	2017
Society of Women Engineers	2013-17
<i>President (2016), Treasurer (2015)</i>	
<ul style="list-style-type: none">• Directed 15-person exec. board to host all events for SWE: the most active engineering society at Rutgers University• Lead organizer for the 29th/30th Annual SWE-SHE-MEET Engineering Minority Career Fair: 50 companies, 500 students	
Cap & Skull Senior Honor Society	2016-17
<ul style="list-style-type: none">• worked with presidential cabinet members and student focus groups to create a new student mission statement: “The Knights Call”	
University Sustainability Committee	2016-17
<i>STARS Reporting Initiative Founder</i>	
<ul style="list-style-type: none">• created a student coalition to collect data about Rutgers' sustainability practices for the national AASHE STARS program	
Pearson Teaching and Learning Blog	2014
<i>STEM Education Writer</i>	
<ul style="list-style-type: none">• Wrote articles on SWE Conferences, Hackathons, and Creative Engineering Courses	
Course Presentations: “The Smart Grid”, “Trends in Solar Energy Policies”	2016
Memberships: IEEE Power and Energy Society, Rutgers Energy Institute	

Skills

Programming:	MATLAB, LaTeX, C++, Java
Other software:	TRNSYS, SolidWorks, Simulink, PSPICE, PowerWorld