

## JILLIAN C. BURGOYNE

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### EDUCATION

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**Master of Science in Engineering Management** (May 2016) GPA: 3.734/4.0  
Syracuse University, College of Engineering and Computer Science, Syracuse, NY

**Bachelor of Science in Mechanical Engineering** (May 2014) GPA: 3.312/4.0  
Minor in Mathematics  
Syracuse University, College of Engineering and Computer Science, Syracuse, NY

### RELEVANT WORK EXPERIENCE

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**Student Research Assistant** **January 2016 – Present**

*Institute of Building Climatology, Technische Universität Dresden, Dresden, Germany*

- Learn multiple building energy simulation software programs such as DesignBuilder and EnergyPlus
- Compare and contrast programs through modeling case studies to determine the best uses for each program
- Utilize software programs to quantify energy saving practices for current and proposed buildings
- Assist professor in creating lecture material for upper level civil engineering students
- Prepare tutorials for students who wish to use 3D building energy simulation software for projects

**Lead Energy Engineer** **December 2014 – December 2015**  
**Energy Analyst** **(2011-2014)**

*U.S. Department of Energy Industrial Assessment Center, Syracuse University, Syracuse, NY*

- Conduct in-depth industrial energy assessments at manufacturing plants, generating recommended savings based on energy reduction, waste stream minimization, productivity optimization and overall efficiency increases.
- Responsible for maintaining contact with clients and obtaining equipment quotes on their behalf. Document and analyze data on-site and write thorough technical reports within a strict 60 day timeline for each client.
- Responsible for managing 10 graduate and undergraduate engineering students including a satellite team at Clarkson University. Duties include overseeing the training of new employees, delegating projects, technical advising and overseeing and completing special projects given by the center's director and Syracuse University.
- Participated in over 40 energy assessments, personally leading ten, resulting in more than \$350,000 recommended savings.

**Teaching Assistant** **January 2015 – May 2015**

*Syracuse University Department of Mechanical and Aerospace Engineering, Syracuse, NY*

- Assist professor in instructing mechanical engineering course of Manufacturing Processes (MFE 331)
- Performed tasks such as preparing homework examples, teaching students during office hours, and grading.

**Student Research Assistant** **Summer 2013**

*Combustion & Energy Research Laboratory, Syracuse University, Syracuse NY*

- Fabricated various types of solid oxide fuel cells.
- Created portable fuel cell demonstration used for educational purposes.

### LEADERSHIP EXPERIENCE

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**Regional Volunteer, Phi Sigma Pi Mid-Atlantic Region** **August 2014-March 2015**

- Coordinate online meetings amongst several Chapters in the Mid-Atlantic Region of the United States; Consult in Risk Management practices to ensure safety and enforce policies across Chapters

**President, Society of Women Engineers, Syracuse University Section** **Spring 2013-Spring 2014**

- Lead general body meetings, plan and coordinate events with Local SWE Chapters and Students

**President, Phi Sigma Pi Beta Epsilon Chapter, Syracuse University** **Spring 2013-Spring 2014**

- Act as Chair of Executive Board – Liaison between National Office Headquarters and Chapter
- Risk Management Chair – Plan and run several Risk Management events per year

**Recruitment Advisor, Phi Sigma Pi Beta Epsilon Chapter, Syracuse University** **Fall 2012-Spring 2013**

- Organize recruitment events for new incoming members

## INTERNATIONAL EXPERIENCE

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### Semester Abroad in Germany

January 2016 – Present

- Adapt to new city and become accustomed to multiple cultural changes
- Learn to communicate in new language

### IIT Gandhinagar Energy Efficiency Workshop Coordinator and Instructor

March 2014

- Traveled to the Indian Institute of Technology in Gandhinagar, India to teach a one week workshop on industrial energy efficiency.
- Performed tasks such as create a lecture plan, formulate lecture material, and present the material to a class of 30 students and professors.

## SKILLS & CERTIFICATIONS

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- Language skills: Spanish (conversational), German (beginner), English (native)
- Technical report writing and production
- Advanced MS Office (Microsoft Word, PowerPoint, Excel, Publisher)
- Proficient Microsoft SQL Server Management Studio
- MATLAB, AutoCAD, SolidWorks
- MSSC Certified Production Technician in Green Production (October 2014)
- Engineering in Training Certification Exam (~Spring 2016)
- Coursework in Sustainable Engineering & Development, Infrastructure Systems & Asset Management, HVAC Systems, Engineering Economics, Global Supply Chain, Project Management, Supply Chain Management, Quality Control, Presentational Speaking, Database Management, Managing Sustainability, Manufacturing Processes, Sustainability in the Natural Environment

## HONORS, AWARDS & ACHIEVEMENTS

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- NYSP2I R&D Student Competition, 3<sup>rd</sup> Place, *Using Computational Fluid Dynamics to Efficiently Reduce Thermal Stratification at Small and Medium Scale Industrial Facilities* (2015)
- NYSP2I R&R Student Competition, 1<sup>st</sup> Place, *Green Heating: Reducing Overheating and Pollution on Campus* (2014)
- U.S. Department of Energy Advanced Manufacturing Office IAC Student Research Award Winner, *Efficiently Reducing Thermal Stratification at Small and Medium-Scale Industrial Facilities* (2013-2015)
- American Council for an Energy-Efficient Economy Linda Latham Scholarship (2015)
- Phi Sigma Pi Richard Cecil Todd and Clauda Pennock Todd Tripod Scholarship (2014)