

Sarah G. Garrow

GRADUATE RESEARCH ASSISTANT · ALLEYNE RESEARCH GROUP & POETS

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Education

University of Illinois at Urbana-Champaign (UIUC)

Urbana-Champaign, IL

M.S. IN MECHANICAL ENGINEERING · GPA: 4.0/4

Aug. 2016 - PRESENT

- Advisor: Dr. Andrew Alleyne
- NSF Engineering Research Center: Power Optimization of Electro-Thermal Systems (POETS)
- Research Area: Controls and Dynamic Systems
- MechSE Distinguished Fellowship 2016-2017

B.S. IN AGRICULTURAL & BIOLOGICAL ENGINEERING · MINOR IN SPANISH · GPA: 3.96/4

Aug. 2012 - May 2016

- Edmund J. James Scholar, James Baldwin Turner Scholarship, Frank B. Lanham Award, Waterborne Environmental Scholarship, Bernard C. Mathews/Mathews Company Award, Robert J. Gustafson Endowed Scholarship

Universidad ORT

Montevideo, Uruguay

WOMEN IN BUSINESS AND TECHNOLOGY PROGRAM

May 2015 - June 2015

- Learned and practiced the Design Thinking Approach in an integrated course with ORT University students
- Visited two incubators and discussed with successful entrepreneurs the process of developing a start-up company and in class developed Business Canvas Models

Experience

UIUC/Power Optimization of Electro-Thermal Systems (POETS) Engineering Research Center

Urbana-Champaign, IL

GRADUATE RESEARCH ASSISTANT

Aug. 2016 - PRESENT

- Develops Matlab/Simulink dynamic models for HVAC components released in Thermosys, a toolbox for analyzing refrigeration and air conditioning systems managed by CUAerospace (Champaign IL)
- Designs model based control algorithms to optimize efficiency of an electric vehicle thermal management system using electrical and thermal models of EV passenger cabin, battery pack and transcritical vapor compression system
- Uses graph theory to develop high order integrated thermal and electrical system power flow simulations

Schlumberger

Sugarland, TX

REMS MECHANICAL ENGINEER INTERN

May 2016 - Aug. 2016

- Conducted a feasibility study on the use of a pump system as an alternative concept for an existing tool
- Performed calculation analyses to quantify and understand incidents that occurred with commercialized tools
- Wrote and executed test plans related to issues that arose from commercialized tools in the field and analyzed the results

Leadership

POETS Student Leadership Committee (SLC)

Urbana-Champaign, IL

SECRETARY (CURRENT)

Aug. 2017 - PRESENT

- Creates documentation and procedures for transitioning new members of POETS
- Collaborates with POETS staff to keep accurate list of membership across the institutions
- Takes notes during each SLC meeting and shares afterwards to collaboration tools such as Samepage and Box

UIUC Society of Women Engineers

Urbana-Champaign, IL

PROFESSIONAL LUNCH SERIES COORDINATOR (CURRENT) · LUNCH COORDINATOR ASSISTANT & FUNDRAISING

Aug. 2012 - PRESENT

ASSISTANT ('16-'17) · SOCIAL DIRECTOR ('14-'15) · FUNDRAISING CHAIR ('13-'14)

- WE17 Rapid Fire Competition Finalist - Austin, TX
- Devise a plan of topics for 8 lunches each semester with the goal of providing students with speakers with diverse backgrounds and knowledge
- Researches local individuals with experiences that align with the goals of each lunch, including UIUC faculty, graduate students, local industry and start-ups, and community members
- Manages a \$3000 budget over the course of two semesters