Paige Brimley

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# Education

**University of Colorado Boulder** *August 2019-Present*

Ph.D. in Chemical Engineering

**University of Utah** *May 2019*

Degree: B.S. in Chemical Engineering

# Honors and Awards

**Graduate Assistantship in Areas of National Need** *2019*

**Graduating Senior Academic Excellence Award** *2019*

Awarded by the Department of Chemical Engineering to top academically ranked graduating seniors.

**Departmental Tuition Scholarship – Chemical Engineering** *2018*

Awarded for demonstrated proficiency in the field and academic excellence.

**Walter L and Treva Pershing Endowed Scholarship** *2017*

Awarded for outstanding academic achievement, funded by the former President of the University of Utah and Dean of the of College of Engineering.

**David and Annette Jorgensen Scholarship** *2016 - 2019*

Awarded to students who have overcome personal hardship and demonstrated academic excellence.

**Dean’s List** *2015-2019*

# Research and Technical Experience

**University of Colorado Boulder** – Boulder, Colorado *2019*

*Graduate Research Assistant, Advisors: Dr. Wilson Smith and Dr. Charles Musgrave*

**University of Utah** - Salt Lake City, UT *2019*

*Undergraduate Researcher, Advisor: Dr. Kody Powell*

* Developed an optimization program in Matlab that used the genetic algorithm to schedule equipment operations for a local composites manufacturer to reduce peak electrical demand and associated costs without affecting production

**Idaho National Laboratory** - Idaho Falls, ID *Summer 2017 & 2018*

*Undergraduate Intern, Aqueous Separations and Radiochemistry Department, Advisor: Kevin Lyon*

* Performed research for the DOE funded Critical Materials Institute on rare-earth metal separations and solvent extraction flowsheet development
* 2017: Assisted with a thermodynamic study to determine the distribution coefficients of rare-earth metals in aqueous-organic feeds for nuclear fuel recycling and mining applications.
* 2018: Optimization of rare-earth metal separations and characterization of the surface chemistry for newly developed DGA molecules.

**University of Utah**, Salt Lake City, UT *September 2017 to June 2019*

*Intermountain Industrial Assessment Center – Student Energy Analyst, Department of Chemical Engineering, Advisors: Dr. Kody Powell and Julie Sieving, PE*

* Utilized energy logging equipment and on-site measurements to perform energy audits at small to medium manufacturers.
* Identified savings of >$100,000 and 1900 kW for a medical manufacturer, and savings of >$15,000 and >300,000 gal/year of water for a local brewery
* Assessment lead, assisted or lead the writing of 8 technical reports presenting IIAC findings to energy audit clients, served as a mentor to new hires.

**University of Utah**, Salt Lake City, UT *August 2015 to December 2017*

*Chem-E Car, Department of Chemical Engineering, Advisor: Dr. Tony Butterfield and Dr. Kyle Branch*

* Worked on a team to develop an ethanol combustion car to participate in the annual AIChE Chem-E Car competition
* Competed in the 2017 Regional AIChE competition in Grand Forks, ND and earned 4th place

**University of Utah**, Salt Lake City, UT *January 2016 to May 2016*

*Undergraduate Research Opportunities Program, Department of Chemical Engineering, Advisor: Dr. Jaye Magda*

# Community Service

**GAANN Outreach,** University of Colorado at Boulder

* Planned and lead activities for 100+ elementary students at KidSpace (November 2019)

**K-12 Outreach,** University of Utah

Student Member, Vice President (2016-2017)

August 2015 – December 2018

* Tabled at many events (15+) tailored to underrepresented students in STEM in 6th-12th grade about chemical engineering, presented many times (10+) to classrooms of students, researched and helped develop presentation modules for Outreach events
* Lead groups of students through experiments that illustrated core chemical engineering concepts

# Technical Skills

**Computer skills:**

* **Matlab** *optimization toolbox, NLP and LP, solving ODE’s and PDE’s as applied to chemical engineering programs, energy-use modeling, DAQ with Arduino*
* **Python**
* **bash terminal**

# Teaching Experience

**Teaching Assistant for Applied Data Analysis** *Fall 2019*

Department of Chemical Engineering, University of Colorado at Boulder

* Held office hours, facilitated student discussions and active learning of course material.