(903)-316-6266

**JAYDEE EDWARDS**

CHEMISTRY, B.S.

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EDUCATION **DOCTOR OF PHILOSOPHY in Earth and Environmental Sciences**

Fall 2020 – Current / University of Pennsylvania

Philadelphia, PA | Benjamin Franklin Fellow

**BACHELOR OF SCIENCE in Chemistry / May 2020 / John Brown University**

Siloam Springs, AR | GPA 3.7 | Chancellor’s Scholar | Cum Laude | Chemistry Honor Student

## Study Abroad Student / Spring 2019 / Handong Global University

Pohang, South Korea – Experiencing international culture, language and people as well as understanding the need for environmental scientific research and application on a global level.

RESEARCH AND **School of Arts and Science Government • VP of Communications**

PROFESSIONAL Fall 2020 – Current | University of Pennsylvania

EXPERIENCE • Maintain communications with the general body of representatives

• Record minutes for General Body meetings and Executive Board meetings

• Acts as official representative to GAPSA from SASgov Executive Board

**Graduate and Professional Student Assembly • Representative**

Fall 2020 – Current | University of Pennsylvania

• Representative in the General Assembly

• Member of Research Council

• Work through research funding and travel grants for research focused students

**Graduate Women in STEM : Philly Chapter • Treasurer**

Fall 2020 – Current | University of Pennsylvania

• Manage funding for Philly Chapter

• Secured funding for annual Symposium

**JBU Enactus: Project *embr* • Environmental Scientist/Advisor**

Fall 2018 – Spring 2020 | [embrwater.org](https://www.embrwater.org/)

*embr* is an Enactus project seeking to improve the quality of life for residents of Pignon, Haiti.

• Analyzed potential environmental and health impacts of implementing a trash incinerator.

• Researched and studied literature concerning municipal solid waste.

• Contributed as a writer to procedural processes, project summary, etc.

**Research Intern • NSF-REU • University of Arkansas**

Summer 2018 | Rob Coridan Research Group: [rcoridan.hosted.uark.edu](https://rcoridan.hosted.uark.edu/)

• Investigation of photoelectrochemical cells (PEC’s) characteristics to improve the chemical process for conversion of solar energy to chemical fuels.

• Researched and conducted lab experiments using various chemical solutions, such as methanol and glycerol, as a way to increase water oxidation catalysis.

• Attended weekly group meetings, engaged in problem solving and discussion, and actively learned about the different aspects of the project.

**Research Student • John Brown University**

Spring 2017 – Spring 2020 | Jill Ellenbarger Research Group

• Utilized computational chemistry to study the interactions between water contaminants and potential sensors for identification through investigation of urea compounds and fragments.

• Explored a fragment-based method for calculating interaction energies between bisurea structures and potential anion contaminants.

• Attend weekly group and individual meetings to discuss research and problem solve.

**Teaching Assistant to Dr. Susan Newton • John Brown University**

Fall 2019 – Spring 2020 | Department of Chemistry

• Teaching Assistant for Biochemistry I, specifically laboratory instrumentation (HPLC/UV-VIS)

• Prepared for laboratory experiments, supervised waste and clean up, assisted and trained instrumentation, graded materials from class, etc.

**Resident Assistant • John Brown University**

Fall 2017 – Spring 2020

• Student leader in the resident halls for social community by encouraging students to engage well with each other and leading by example through service, open mindedness, and academic support.

SCIENTIFIC **J. Edwards, E. Newkirk, J. Ellenbarger.** *Exploring structural, energetic,*

PRESENTATIONS *and colorimetric properties to predict bis-urea sensors of anionic**contaminants.*American Chemical Society National Conference. Philadelphia, PA. Spring 2020.\*Abstract Accepted. \*Cancelled due to COVID-19.

**J. Edwards, J. Ellenbarger.** *Exploring the additivity of urea and anion interactions.*John Brown University, Science Underground Poster Presentation. Siloam Springs, AR. Fall 2019.

**J. Edwards, M. Norman, R. Coridan.** *Characterizing electrochemical hole scavengers for hierarchically structured zinc oxides.*Southwest Regional ACS Meeting Poster Presentation. Little Rock, AR. Fall 2018.

**J. Edwards, M. Norman, R. Coridan.** *Characterizing electrochemical hole scavengers for hierarchically structured zinc oxides.*University of Arkansas, Poster Presentation. Fayetteville, AR. Summer 2018.

**J. Edwards, J. Ellenbarger.** *Exploring the additivity of urea and anion interactions.*John Brown University’s Celebration of Academic Excellence, Oral Presentation. Siloam Springs, AR. Spring 2018.

**J. Edwards, J. Ellenbarger.** *Exploring the additivity of urea and anion interactions.*American Chemical Society National Meeting Poster Presentation. New Orleans, LA. Spring 2018.

AWARDS AND **Outstanding Undergraduate Research Award.** *John Brown University, Spring* HONORS *2020.* Award recognizes the student that best displays excellence in completion of an undergraduate research project in science or mathematics.

**Tony Jude Award Recipient for Outstanding Researcher during Research**

**Experience for Undergraduates program at University of Arkansas.** *Fayetteville, AR. Summer 2018.* Awarded as the outstanding undergrad researcher.

**First Place Recipient of John Brown University’s Celebration of Academic Excellence.** *Siloam Springs, AR. Spring 2018.* Awarded first place out of sixteen oral presentations from a variety of fields for my oral presentation on *Exploring the additivity of urea and anion interactions* under the mentoring of Dr. Jill Ellenbarger*.*

PROFESSIONAL **American Chemical Society.** *Fall 2017 – Current.*

AFFILIATIONS **Geological Society of America.** *Fall 2020 – Current.*

**Graduate Women in STEM: Philadelphia Chapter.** *Fall 2020 – Current.*

**University of Pennsylvania: Graduate and Professional Student Assembly.** *Fall 2020 – Current. Representative from the School of Arts and Sciences.*

**University of Pennsylvania: School of Arts and Sciences Government.** *Fall 2020 – Current. Representative from the Department of Earth and Environmental Sciences.*

GRANTS **Water Center at Penn Student Grant Recipient.** *Awarded Fall 2020.*

SKILLS & • Teaching • Public Speaking

ABILITIES • Lab preparation and supervision • Critical thinking and analysis skills

• Managing budgets • Strong interpersonal skills

• Budget management • Goal oriented

• Computer Skills: Competency in Excel, • Time Management Skills

PowerPoint, Prezi • Work well independently and in groups

• Instrumentation skills – High Performance Liquid Chromatography (HPLC), Ultra-Violet Visible Spectroscopy (UV-VIS), Scanning Electron Microscopy (SEM), Gaussian 03/16 Program