

Danielle Holt

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EDUCATION

Duke University GPA: 3.227/4.000

Durham, NC | Expected Graduation May 2019

Pratt School of Engineering, pursuing B.S.E. in Environmental Engineering, minor in African and African American Studies

University of Ghana, Legon

Accra, Ghana | Summer 2018

Study abroad, continuing coursework towards minor

University of New South Wales

Sydney, Australia | Fall 2017

Study abroad, continuing coursework towards B.S.E. degree

Western School of Technology and Environmental Science

Baltimore, MD | Graduated June 2015

Environmental science magnet program, class president

ENGINEERING EXPERIENCE

Environmental Engineering Microplastics Laboratory Assistant

Duke | Spring 2018- Present

- Conduct field work and analysis of environmental degradation associated with various microplastics

Water/Wastewater Engineering Intern at HDR

Fulton, MD | Summer 2017

- Value engineered future water treatment plant headworks system
- Compiled and analyzed trace metal and nutrient content in effluent from wastewater treatment plant
- Assessed change order requests and reviewed submittals for wastewater treatment plant expansion
- Conformed municipality specification documents
- Performed a variety of site visits at operational plants

Independent Environmental Engineering Fieldwork Study

Bolivia & Durham, NC | Spring 2016

- Conducted initial research on environmental contamination in Bolivia, strategized study, collected samples, analyzed results, wrote report about findings and presented at Georgia Institute of Technology
- Analysis was centered around four study topics, including the analysis of mercury levels in fish, trace metal and elemental composition in surface water, the presence of lead in drinking water of Bolivian municipalities, and atmospheric mercury concentrations

Volunteer for the WindAid Institute through DukeEngage

Peru | Summer 2016

- Constructed and installed three wind turbines in homes without access to grid electricity, gathered and compiled community data of Spanish speaking families to serve as the basis of a research poster

Building Opportunities and Overtures in Science and Technology (BOOST) Employee

Duke | Fall 2016- Spring 2018

- Planned and lead science experiments with seventh graders in order to increase presence of underrepresented minority students in STEM majors and careers
- Inaugurated technical database for program by consolidating hundreds of physical files on program participants

PUBLICATIONS & AWARDS

First place for the NSBE Debaters Competition at the NSBE Region II Fall Regional Conference (FRC)

Fall 2018

Energy Access Case Studies on Energy and Development: WindAid in Playa Blanca, Peru

Duke | June 2017

- Co-authored a case study that explores the business model behind the "The WindAid Institute" - an NGO that uses international volunteers to manufacture and install wind turbines in Peruvian households

First place for the Technical Research Exhibition Poster Competition at the NSBE Region II FRC

Fall 2016

SKILLS

Technical Skills- Proficient in MATLAB, and Microsoft Office; working proficiency in AutoCAD; familiar with LaTeX & Bluebeam Revu; introduction to Mathematica & ArcGIS; surveying, power tools

Language- Proficient in Spanish and Jamaican Patois

CAMPUS INVOLVEMENT

President for the National Society of Black Engineers (NSBE)

Duke | Summer 2018- Present

- Further goals of organization to increase number of Black engineers
- Manage executive board of 14 members and annual budget of \$13,500
- Orchestrate and supervise all chapter proceedings; communicate with outside organizations and engineering companies; seek out networking, conference, internship, and employment opportunities for general body members
- Prior roles as chapter secretary and vice president

President for Trinity Residence Hall

Duke | Spring 2018

- Superintend budget of over \$7,000 by orchestrating diverse programming events for 247 undergraduate residents

Founding member of EnergyX

Duke | 2016- 2017

- Mission- to increase undergraduate experience and involvement in rural energy access
- Planned and facilitated invitation of two founders from international NGOs to campus, hosted series of events to explore, discuss, and expose students and experts to challenges and impacts of increasing rural energy access through renewable sources of wind energy and hydroelectric power