

Maya Hillis

My mission is to pursue environmental justice, social connectivity, and peace by uniting sustainable, green engineering innovations with community-based design and collaboration.

Education

Drexel University, Philadelphia, Pennsylvania

Fall 2022 - Present

Peace Engineering MS, Environmental Engineering PhD (GPA: 3.91)

University of Kentucky, Lexington, Kentucky

Fall 2018 - Spring 2022

Chemical Engineering BS -- Mathematics Minor (graduated *Summa Cum Laude*)

Environmental Engineering Certificate; Lewis Honors College; Dean's List, 7 semesters

Experience

Drexel University – Graduate Researcher

Fall 2022 - Present

- Cultivate Algae for PFAs bioaccumulation experimentation
- Model and Assess community impact of flooding in Eastwick Philadelphia

Beaver Creek Hydrology – Field Intern

Summer 2022

- Collected field data and mapped impacts for stream restoration engineering and assessment

UK Center for Applied Energy Research – Undergraduate Researcher

Summer 2019 - Spring 2022

- Conducted biomass characterization and hands on bioprocessing for the Algae Group under the Biofuels and Environmental Catalyst Department
- Managed experimental data, chemical inventory, and photobioreactor maintenance

UK's Dep. of Entomology – Highschool Researcher

Fall 2016 - Spring 2018

- Utilized BLAST algorithm to isolate heat shock protein genes in *Belgica Antarctica's* genome
- Conducted RNA Extraction and qPCR on *Belgica Antarctica* DNA to assess response to biological stressors: dehydration and rapid cold hardening

Publications

- Co-Authored: Fritz VE et al. Towards an Integrated Process for CO₂ Capture and Utilization: Cultivation of *Scenedesmus acutus* Using Gaseous CO₂ and NH₃. *BioEnergy Research*. 2023. (Impact Factor=3.852)
- Co-Authored: Teets NM et al. Changes in Energy Reserves and Gene Expression Elicited by Freezing and Supercooling in the Antarctic Midge, *Belgica antarctica*. *Insects*. 2019; Vol. 11, Special Issue (Impact Factor=3.141)

Extra-curricular and Volunteer Activities

Active Volunteer, Eastern Service Workers Association (10 hours/week)

Spring 2023 - Present

Event Coordinator, Drexel's CAEE Graduate Student Association

Spring 2023 - Present

Assessment Chair, UK's Alternative Service Break's Executive Team

Fall 2020 - Spring 2021

Education Coordinator, Mindfulness and Meditation Club

Fall 2020 - Spring 2021

Relevant Course Work

Social Justic Foundations, Peacebuilding Skills, Intro to Project Management, Systems Eng for Peacebuilding, Sustainable Water Resource Eng, Data-based Eng Modeling

Technical and Professional Skills

Proficient in Java, Matlab, and MS Office; Novice in Negotiation and Conflict Mapping

Affiliations and Honors

Tau Beta Pi (Since Spring 2020); Alpha Phi Omega (Since Fall 2019); UK Provost Scholarship (2018-2022)