

## OVERVIEW

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Doctoral student studying sustainability and socio-environmental systems under uncertainty

## EDUCATION

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**PhD in Geosciences and Climate Science**, Penn State University **Anticipated May 2026**  
**Master of Science in Geosciences**, Penn State University **August 2022**  
*Penn State, College of Earth and Mineral Sciences* *University Park, PA*  
▪ No. 2 graduate program in environmental sciences behind Stanford University

**Bachelor of Science in Earth Sciences**, Penn State University **May 2020**  
*Penn State, College of Earth and Mineral Sciences* *University Park, PA*  
▪ Minor in Meteorology

**Bachelor of Science in Finance**, Penn State University **May 2018**  
*Penn State Behrend, Black School of Business* *Erie, PA*

## RESEARCH

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**Graduate Research Assistant** **Summer 2020 – Present**  
*Penn State, Department of Geosciences* *University Park, PA*

**Undergraduate Research Assistant** **Summer 2019 – Spring 2020**  
*Penn State, Department of Geosciences* *University Park, PA*

- **Research areas:** earth systems, coupled human-natural systems, multi-sector dynamics, uncertainty quantification/characterization, exploratory modeling and sensitivity analysis, decision making under deep uncertainty (DMDU), climate risk analysis, water resources, resilience, resource distribution and equity
- **PhD work:** I am quantifying and characterizing uncertainty in agricultural management practices using agent-based models to help inform design for climate risk management of US Great Lakes watersheds.
- **Master's and Undergraduate work:** I quantified uncertainty in projections of sea-level rise from melting ice sheets due to climate change using coupled probabilistic-Bayesian inversion of expert assessments.
- **Advisors:** Antonia Hadjimichael, Richard B. Alley, Klaus Keller
- **Technical proficiencies:** Cloud-based data and code management, High-Performance Computing, R, Python, Julia, Jupyter Notebooks, Matlab, Paperpile, Git, GitHub

## FELLOWSHIPS AND AWARDS

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**Graduate Fellow for Science Advocacy and Diversity (GFSAD)** **Fall 2021 – Present**  
*Penn State, College of Earth and Mineral Sciences* *University Park, PA*  
▪ Part-time fellowship: advocate for science and strengthen diversity, equity and inclusion across the university

**2022 Catherine Lyons Diversity, Equity and Inclusion Graduate Student Award** **April 2022**  
*Penn State, College of Earth and Mineral Sciences* *University Park, PA*  
▪ \$1,000 award for leadership manifesting the ideals of diversity, equity and inclusion into practical action

**Bunton Waller Graduate Assistantship with Incentive Award** **May 2020**  
*Penn State, College of Earth and Mineral Sciences* *University Park, PA*  
▪ Upgraded graduate assistantship for master's program with \$5,000 recruitment incentive

## MANUSCRIPTS IN PREP

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**Aquino, C.F.G., Srikrishnan, V., and Keller, K.** Probabilistic inversion of expert assessments of potential ice-sheet responses. (Presented poster at AGU 21 Fall Meeting, Online. December 2021)

## IMPACT AND LEADERSHIP

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### Founder, The Penn State Sustainability Ambassadors (PSSA) program

June 2022 - Present

*The Pennsylvania State University*

- Starting up a brand-new program to jointly design sustainability outreach solutions for Pennsylvania primary and secondary school communities through stakeholder engagement and encouraging community leadership
- Managing a team of two grad students and four undergrads

### Small Island Big Song's "Climate Change: Our Response as Artists"

April 6, 2022

*Penn State's College of EMS, Sustainability Institute and Center for Performing Arts*

*University Park, PA*

- Led efforts to present a brand-new multimedia art-and-sustainability crossover panel featuring visiting musical artists Small Island Big Song and moderator Dr. Richard Alley (59 attendees)
- Directed and produced the [official trailer](#) (733 views) and student video interviews for the panel
- Managed a team of three grad students and eight undergrads

### EMS Student Perspectives on Grad School

March 24, 2022

*Penn State, College of Earth and Mineral Sciences*

*University Park, PA*

- Presented a brand-new panel to undergrads interested in learning more about grad school
- Reached 22 undergrads representing all five departments within our college
- Managed a team of 14 grad students and two undergrads

### Climate Change Day for Upward Bound Programs

November 2, 2021

*Penn State, Office of Educational Equity*

*University Park, PA*

- Designed and led a brand-new virtual two-hour outreach program on climate change
- Reached 53 low income and/or first-generation high school students (110 students asynchronously)
- Coordinated flagship talks with Dr. Richard Alley and Dr. Nancy Tuana
- Produced student video interviews, locally relevant brochure on climate action and climate vocabulary slide
- Managed a team of two grad students and one undergrad

### EMS Mental Health Workshop Series

Fall 2021 – Spring 2022

*Penn State, College of EMS Mental Health Working Group*

*University Park, PA*

- Produced workshops: "Coping with Grief," "Stress & Anxiety", "Work-Life Balance"
- Increased audience attendance by 240% by creating a new partnership with the Eberly College of Science
- Increased live audience participation by 28% by implementing a new interactive Google Forms tool

### EMS Diversity Council

May 2020 – Spring 2022

*Penn State, College of Earth and Mineral Sciences*

*University Park, PA*

- Successfully qualified two lab groups (Keller Research Group and PSICE) for the Rainbow EMS Network, increasing their understanding of issues facing the LGBTQ+ community and commitment to inclusivity
- Helped shape guidelines and procedures for the inaugural EMS Diversity, Equity and Inclusion Awards

## PROFESSIONAL ACTIVITIES

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Member, Society for Decision Making under Deep Uncertainty (DMDU)

Member, American Geophysical Union (AGU)

## INTERESTS

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- I am pursuing flight instruction to become a private pilot for fixed-wing and rotary-wing aircraft
- Prior to becoming a scientist, I wrote music for film and TV and was a songwriter/producer in Los Angeles
  - additional music composer on "Just in Time for Christmas," Hallmark Channel Christmas movie
  - orchestrator and score coordinator on "Deliver Us from Evil," directed by Scott Derrickson
  - co-writer of two singles released by Taiwanese singer and actress, Cindy Yen (JVR Music, Sony BMG)