

# Samantha C. Hill

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**Summary** Mathematician with 4+ years experience conducting quantitative analysis of biological systems.  
Leader, volunteer, and liaison with 3 years experience advocating for women in math.

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## Education History

- **Ph.D. Mathematics** with a focus in mathematical biology 2020  
*University of Utah* Salt Lake City, UT
    - Advisor: Dr. Frederick R. Adler GPA: 4.00
  - **B.A. Mathematics** 2014  
*Pomona College* Claremont, CA
    - Phi Beta Kappa, magna cum laude GPA: 3.95
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## Research Experience

- **Doctoral Research** 2014–present  
*University of Utah* Salt Lake City, UT
    - Building quantitative models of insect behavior and mathematically optimizing foraging strategies.
    - Analytically deriving neighborhood conditions that maximize plant fitness.
    - Frequently communicating research methods and results to specialized and general audiences.
  - **Mathematical Analysis of Behavior Workshop** 2018  
*Janelia Research Campus* Ashburn, VA
    - Derived objective functions and tested hypotheses that the geometry of *Mimosa pudica* plants minimizes the energy costs of folding leaves and maximizes the benefits of escaping wind or predation.
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## Computer Skills

MATLAB · R · XPP/XPPAUT · L<sup>A</sup>T<sub>E</sub>X

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## Leadership and Service

- **Association for Women in Mathematics (AWM) Student Chapter at the U of U** 2016 - 2019  
**President (2018-2019), Treasurer (2016-2018)**
    - Organized a Bystander Intervention Training attended by forty students, faculty, and staff.
    - Held AWM teas with all faculty candidates, the first year a woman in pure math accepted our job offer.
    - Planned professional development, social, and outreach events; increased involvement from undergraduates; liaised with the department; distributed information regarding upcoming opportunities.
  - **Mathematical Biology Journal Club Co-Leader** 2018 - 2019  
*University of Utah* Salt Lake City, UT
    - Provided feedback and mentorship to early graduate students interested in mathematical biology, enhancing their critical thinking and presentation skills for math journal articles (MATH 7875).
  - **Instructor of Record** 2015 - 2018  
*University of Utah* Salt Lake City, UT
    - Accelerated Calculus II for Engineers (MATH 1321), Differential Equations and Linear Algebra for Engineers (MATH 2250), Trigonometry (MATH 1060).
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## Awards and Training

- Outstanding Graduate Student Award, University of Utah Department of Mathematics 2019
- NSF research training group grant (RTG) fellowship in mathematical biology 2014, Summer 2016, 2018
- SIAM Life Sciences Conference Poster Award 2018
- Invited Panelist, Nebraska Conference for Undergraduate Women in Math 2018
- SMB Annual Meeting Center for Quantitative Biology Poster Award 2017
- Participant, Enhancing Diversity in Graduate Education (EDGE) for Women 2014