# MOLLY Q FELDMAN

CONTACT 456 Gates Hall molly@cs.cornell.edu

Information Department of Computer Science

Cornell University Ithaca, NY 14853

http://www.cs.cornell.edu/~molly/

Research Human-computer interaction, educational technology, crowdsourcing and human computation,

Interests programming languages

EDUCATION Cornell University, Ithaca, NY August 2015 - August 2020 (expected)

Ph.D., Computer Science

Committee: Haym Hirsh (chair), Ross Tate, François Guimbretière

Cornell University, Ithaca, NY December 2018

M.S., Computer Science Advisor: Erik Andersen

Swarthmore College, Swarthmore, PA August 2011 - May 2015

B.A., Mathematics and Computer Science

Elected Phi Beta Kappa

Course Work, Budapest Semesters in Mathematics, Spring 2014

Publications Molly Q Feldman, Yiting Wang, William E. Byrd, François Guimbretière, Erik Andersen.

"Towards Answering "Am I On the Right Track?" Automatically Using Program Synthesis". Proceedings of the 2019 ACM SIGPLAN Symposium on SPLASH-E. 2019.

Molly Q Feldman, Ji Yong Cho, Monica Ong, Sumit Gulwani, Zoran Popović, Erik Andersen. "Automatic Diagnosis of Student Misconceptions in K-8 Mathematics". *ACM CHI Conference on Human Factors in Computing Systems*. 2018.

REFEREED DOCTORAL CONSORTIA Molly Q Feldman. "Automation and Crowdsourcing for Feedback Generation in K-12 Mathematics Education." AAAI Conference on Human Computation - Doctoral Symposium. Quebec City, Canada. October 2017.

INVITED TALKS

- "A Practical Guide to User Evaluation for PL Folk":
- Programming Languages Seminar (PLDG), Cornell University, 18 October 2017
- "Automatic Diagnosis of Student Misconceptions in K-8 Mathematics":
- Department of Computer Science, Harvard University, 21 June 2019
- Artificial Intelligence Seminar, Cornell University, 20 April 2018
- "Salvaging Student Programs, Automatically":
- Programming Languages Seminar (PLDG), Cornell University, 18 October 2017
- "Building Better Automated Feedback Solutions":
- Department of Computer Science, Brown University, 22 November 2016
- Programming Languages Seminar (PLDG), Cornell University, 16 November 2016
- "PL-based Educational Technology":
- IFIP WG2.8 Meeting XXXIV, Lake Placid, NY, 18 July 2016

AWARDS Outstanding Teaching Assistant Award

May 2019

Awarded by Haym Hirsh in acknowledgement of work as the Head TA of Cornell's CS 4700: Foundations of Artificial Intelligence.

OOPSLA Distinguished Artifact Evaluation Committee Member November 2018 Awarded in recognition of my contributions to the OOPSLA 2018 Artifact Evaluation Committee.

### Outstanding Teaching Assistant Award

May 2017

Awarded by Lillian Lee and Erik Andersen in acknowledgement of work as the Head TA of Cornell's CS 1110: Introduction to Computing Using Python.

#### Outstanding Teaching Assistant Award

May 201

Awarded by Bart Selman in acknowledgement of work as the Head TA of Cornell's CS 4700: Foundations of Artificial Intelligence.

#### Heinrich W. Brinkmann Mathematics Prize

May 2015

This prize is presented annually by Swarthmore College's Department of Mathematics and Statistics to the student or students who submit the best paper on a mathematical subject. Awarded for "How to Always Win Every Game: Combinatorial Game Theory and the Sprague-Grundy Theorem." Carries a cash prize and the opportunity for an invited talk.

### RESEARCH EXPERIENCE

#### Graduate Research Assistant

September 2017 - present

Department of Computer Science,

Cornell University

Project: Design, Use & Evaluation of Crowd-Writing Systems

Advisor: Haym Hirsh

### Graduate Research Assistant

August 2015 - May 2019

Department of Computer Science,

Cornell University

Project: Automated Feedback Tools for Procedural Domains

Advisor: Erik Andersen

#### Research Assistant

Summer 2014

Institute for Computational and Experimental Research in Mathematics (ICERM),

Brown University

Project: Computation and Analysis on Reinhardt Polygons with Multiple Prime Divisors Advisor: Michael Mossinghoff (Davidson College)

#### Research Assistant

Summer 2013

Department of Mathematics,

Tufts University

Project: Numerical Models for the time-dependent Heat and Stokes' Equations

Advisors: Scott MacLachlan (Memorial University of Newfoundland) and James Adler

## TEACHING EXPERIENCE

#### Lecturer

Fall 2019

CS 5306: Crowdsourcing and Human Computation

Department of Computer Science,

Cornell University

#### Head Graduate Teaching Assistant

Spring 2019, Spring 2020

CS 4700: Foundations of Artificial Intelligence

Instructor: Haym Hirsh

Department of Computer Science,

Cornell University

Awarded an Outstanding Teaching Assistant Award

### **Head Graduate Teaching Assistant**

Fall 2018

CS 5306: Crowdsourcing and Human Computation

Instructor: Haym Hirsh

Department of Computer Science,

Cornell University

#### **Head Graduate Teaching Assistant**

Summer 2018

CS 1110: Introduction to Computing Using Python

Instructor: Graeme Bailey

Department of Computer Science,

Cornell University

**Head Graduate Teaching Assistant** 

Spring 2017

CS 1110: Introduction to Computing Using Python

Instructors: Erik Andersen and Lillian Lee

Department of Computer Science,

Cornell University

Awarded an Outstanding Teaching Assistant Award

**Head Graduate Teaching Assistant** 

Fall 2015

CS 4700: Foundations of Artificial Intelligence

Instructor: Bart Selman

Department of Computer Science,

Cornell University

Awarded an Outstanding Teaching Assistant Award

Mathematics Teaching Assistant and Grader

Spring 2012, Fall 2014, Spring 2015

Honors Multivariable Calculus and Linear Algebra Instructors: Charles M. Grinstead and Scott Cook

Department of Mathematics & Statistics,

Swarthmore College

Computer Science Teaching Assistant

Fall 2012, Fall 2013

Summer 2019

Data Structures & Algorithms and Introduction to Computer Science

Instructors: Ameet Soni, Joshua Brody and Jeff Knerr Department of Computer Science, Swarthmore College

Industry Experience Research Intern

Google Cambridge Education Team

Graduate Course Work Quantitative Methods I, Educational Technology, Advanced Human Computation, Advanced

Programming Languages, Advanced Systems

SERVICE

External Reviewer, CHI 2020

External Reviewer, DIS WiP 2019

Member, Artifact Evaluation Committee, OOPSLA 2018

Distinguished Committee Member External Reviewer, AfriCHI 2018

Departmental

Committee Member, Gates Hall Space Committee, 2018 - present

SERVICE

Graduate Student Reader, Computer Science Department PhD Admissions Committee, 2019 Committee Member, Computing and Information Science Diversity Committee, 2017 - 2019 Co-Organizer, Programming Languages Discussion Group, Cornell University, 2016 - 2019

Colloquium Czar, Cornell University Computer Science, 2016 - 2017

Co-Organizer, Cornell Computer Science Prospective Student Visit Day, 2016

OUTREACH

Volunteer, Cornell Math Department Elementary School Outreach, 2016 - 2019

Fellow, Cornell Graduate Student School Outreach Program (GRASSHOPR), Spring 2017 Presenter, American Association of University Women (AAUW) TechSavvy, Spring 2017

Co-Leader, Expanding Your Horizons (EYH) workshop, 2016 - 2018

Mentor, Women in Computing at Cornell (WICC), 2016

**Memberships** 

Member, Swarthmore College Chapter, Phi Beta Kappa

Elected, Swarthmore College Chapter, Sigma Xi

Member, Association for Computing Machinery (ACM), SIGPLAN, and ACM-W Member, Association for the Advancement of Artificial Intelligence (AAAI)