# Jamie Gorson

jgorson@u.northwestern.edu || www.jamiegorson.com

## Education

## Northwestern University

Ph.D. Candidate, Computer Science and Learning Sciences, Expected 2022

## Franklin W. Olin College of Engineering

Bachelor of Science in Electrical and Computer Engineering, 2016 Concentration in Innovative Education

# Research Experience

### Graduate Research Assistant, Delta Lab

Northwestern University (2017 - Present)

- Designed and executed multiple studies to advance understanding of computer science students' perceptions of their programming intelligence
- Developed tools to capture low-level log data from development environments and implement algorithms to automatically detect particular moments in students' programming process
- Used both qualitative and quantitative analysis methods to build new theories and create design implications for education environments including by creating and distributing surveys and conducting interviews
- Managed a research team of three undergraduates and a junior PhD student

### Graduate Research Project, TIDAL Lab

Northwestern University (2016 - 2017)

- Designed and implemented prototype of TunePad, a web application for teaching kids to code using music
- Conducted initial evaluation of learning outcomes and user experiences

# Professional Experience

# Google, Research Scientist Intern

Summer 2021

- Worked on Grasshopper in engEDU to improve learning outcomes
- Conducted open-ended data analysis to quantify student dropout behavior
- Proposed and designed an intervention to improve user awareness of learning outcomes and increase confidence in learning to program
- Developed A/B test strategy and new in-app survey metric (the first metric of this kind used on the team) to evaluate intervention

### athenahealth, Software Development Intern

Summer 2015

• Implemented front-end of a mobile-friendly portal for the patient check-in

#### Microsoft, Intern

Summer 2014

• Developed a new interface for analyzing metrics of website performance

### **Publications**

**Jamie Gorson**, Nicholas LaGrassa, Cindy Hsinyu Hu, Elise Lee, Ava Marie Robinson, and Eleanor O'Rourke. 2021. An approach for detecting student perceptions of the programming experience from interaction log data. *International Conference on Artificial Intelligence in Education*. Springer. 2021.

1

**Jamie Gorson** and Eleanor O'Rourke. 2021. CS1 Student Assessments of Themselves Relative to Others: The Role of Self-Critical Bias and Gender. Presented at ISLS 2021.

Jamie Gorson and Eleanor O'Rourke. 2020. Why do CS1 Students Think They're Bad at Programming? Investigating Self-Efficacy and Self-Assessments at Three Universities. In Proceedings of the 2020 International Computing Education Research Conference, August 10–12, 2020, Virtual Event, New Zealand (ICER '20).

Jamie Gorson and Eleanor O'Rourke (2019). How Do Students Talk About Intelligence? An Investigation of Motivation, Self-efficacy, and Mindsets in Computer Science. In Proceedings of International Computing Education Research Conference (ICER 2019), Toronto, ON, Canada. ACM.

Daniel G. Rees Lewis, **Jamie Gorson**, Leesha V. Maliakal, Spencer E. Carlson, Elizabeth M. Gerber, Christopher K. Riesbeck, and Matthew W. Easterday (2018). *Planning to iterate: Supporting iterative practices for real-world ill-structured problem-solving*. In Proceedings of International Conference of the Learning Sciences (ICLS 2018), London, UK. ISLS.

Spencer E. Carlson, Leesha V. Maliakal, Daniel G. Rees Lewis, **Jamie Gorson**, Elizabeth M. Gerber, and Matthew W. Easterday (2018). *Defining and assessing risk analysis: the key to strategic iteration in real-world problem solving*. In Proceedings of International Conference of the Learning Sciences (ICLS 2018), London, UK. ISLS.

**Jamie Gorson,** Nikita Patel, Elham Beheshti, Brian Magerko, Michael Horn (2017). *TunePad: Computational Thinking Through Sound Composition*. In Proceedings of Interaction Design and Children (IDC 2017), Stanford, CA. ACM

# Grants & Awards

Inaugural Symposium on CS & LS, Student Poster Competition Winner, 2019 Segal Design Institute, Design Research Fellow, 2017

National Science Foundation, Graduate Research Fellowship (GRFP), 2016

# Teaching & Mentoring

Teaching Assistant: Algorithms - 300 level

Northwestern University (Spring 2020)

• Taught discussion sections, held office hours and graded assignments

#### **Seminar Instructor:** Computing Everywhere

Northwestern University (2017 - Present)

• Designed and taught seminar courses on computing concepts for undergraduate students on (1) the basics of programming in Python using Earsketch and (2) the applications and concept of AI, focusing on chatbots

### **Undergraduate Research Mentor**

Northwestern University (2017 - 2018; 2020 - Present)

- Mentor three undergraduate students assisting with on my research project
- Coached two teams of undergraduates on independent research projects

### Seminar Instructor: Imposter Syndrome

St. Francis University (October 2019)

• Designed and taught a seminar course for undergraduate STEM students on strategies they can use when they experience imposter syndrome

## Course Assistant: Computer Architecture - 300 level Olin College (2013 - 2014)

• Led office hours and assisted on labs and class projects

### Service

### Academic Service - Reviewer

2021 ACM Conference on Computer Supported Cooperative Work (CSCW) 2021 International Society of the Learning Sciences Annual Meeting (ISLS 2021) 2020 ACM Conference on Human Factors in Computing Systems (CHI 2020) 2019 ACM Conference on Human Factors in Computing Systems (CHI 2019) 2018 ACM Conference on Interaction Design and Children (IDC 2018)

# Graduate Women in Computing, Founding Co-President

Northwestern University (2019 - Present)

# Computer Science PhD Advisory Council, Founding Member

Northwestern University (2017 - 2019)

## Olin Collaboratory, Student Ambassador

Olin College (2013 - 2016)

• Shared Olin's educational model with visiting faculty, deans and professionals

# Engineering Design Independent Researcher and Consultant

KU Leuven, Belgium (2015)

- Advised faculty on integrating design-thinking into engineering programs
- Consulted for faculty of a post-graduate program on how to improve their teaching methodology of the design thinking process