

# Cat Mai

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📱 [catxmai](#)

## Education

**Clark University, Worcester, MA.** 2018–2022  
B.A. Mathematics (Honors Thesis, Advisor: Michael Satz)  
B.A. Computer Science

**Green River Community College, Auburn, WA.** 2016–2018  
High school diploma (Associate of Arts program), *High honors*, Philosophy

## Research Experience

**Honors Thesis, Clark University,** Jun '21–Present  
Advisor: Michael Satz.  
Working on Hamiltonian Markov Chain for Bayesian Models (tbd) [\[repo\]](#)

**Human-Computer Interaction Intern, Brown University,** Summer '21  
Mentors: Jeff Huang, Talie Massachi.  

- Modified and retrained models to predict users' affect from finger pressure and 6dof motion replay
- Analyzed user study data for writeup and visualizations
- Reviewed literature on affect prediction using mobile computing and rewrote the paper for submission.

**Human-Computer Interaction RA, Clark University,** Feb '20–Jun '21  
Advisor: Shuo Niu.  

- Analyzed YouTube videos using grounded theory and wrote the video-tagging interface
- Crawled over 10,000 videos that was used across multiple project and wrote the sanitization pipeline.  
Co-author and lead maintainer of the lab's [crawler package](#).
- Reviewed literature on parasocial relationships and online civic engagement.
- Papers accepted at CHI'21, CSCW'21; presented at undergrad symposium.

**Human-Computer Interaction RA, Clark University,** Summer '19  
Mentors: John Magee, John Garton.  

- Developed proof-of-concept for a virtual garden visit for a conservation project. Rendered 3D photogrammetry models using site's photos. [\[demo\]](#)
- My early models have helped Dr. Garton's colleague secure a Futures grant and Dr. Garton present the project to grant boards. Project plans to resume in 2022.

**Science Education RA, NGSX Learning Lab @ Clark University,** Sep '18–Jun '21  
Advisor: Sarah Michaels.  

- Worked with the lab on teachers' talk moves in science classrooms to understand what makes science lectures productive and to improve professional development for science teachers
- Investigated effectiveness of visualization tools [\[Classroom Discourse Analyzer\]](#) for classroom talk

\*RA=Research Assistant.

## Work Experience

**Teaching Assistant, Clark University.** Aug '19–Present  
Prepare solutions and grade homework. Hold weekly lab/recitation sessions and office hours.

Automata Theory	Fa 2020
Discrete Mathematics	Sp 2020, Fa 2021
Honors Calculus I, II	Fa 2020, Sp 2021, Fa 2021
Intro to Comp Sci-Python	Fa 2019
Data Structures-Java	Sp 2021, Fa 2021

**Game Tester, Carnegie Mellon University - HCII.** Feb '21–Apr '21  
Tested education games and did literature review with Dr. Bruce McLaren.

**Technician Intern, Hamilton Computer Repairs.** Nov '19–Aug '20  
Shadowed technicians; performed diagnostics and hardware replacement for laptops and PC.

## Publications

\* = equal contribution

### Conference Papers.....

- In submission Anonymous Authors. "Automotion: Predicting Emotion and Attention from Smartphone Behavioral Data for Remote Usability Tests". *In submission at ACM - Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*.
- CSCW '21 Shuo Niu, **Cat Mai**, Katherine G. McKim, and Scott McCrickard. "#TeamTrees: Investigating How YouTubers Participate in a Social Media Campaign". *ACM Conference on Computer-supported Cooperative Work*. [\[pdf\]](#).
- CHI '21 Shuo Niu, Ava Bartolome\*, **Cat Mai\***, and Nguyen Binh Ha\*. "#StayHome #WithMe: How Do YouTubers Help with COVID-19 Loneliness?" *ACM CHI 2021 Conference on Human Factors in Computing Systems*. (Acceptance rate = 26.3%) [\[pdf\]](#).

### Posters & Extended Abstracts.....

- CSCW '21 Katherine McKim, **Cat Mai**, Danielle Hess, and Shuo Niu. *Investigating Drug Addiction Discourse on YouTube*. [\[pdf\]](#). CSCW '21.
- Winter Fest '21 **Cat Mai**. *How YouTubers Participate in a Social Media Campaign: A Culture-Based Analysis of #TeamTrees*. [\[pdf\]](#). Winter Fest '21 Clark University.
- Fall Fest '19 **Cat Mai\***, Tina Chiem\*, and Anisha Hassan\*. *Odd One Out": Model Based Biology in an ESL Classroom*. [\[pdf\]](#). Fall Fest '19 Clark University.

## Awards, Honors

- 2020:** LEEP Research Fellow (2,500 for research) *Clark University*
- 2018-2022:** Richard Traina Scholarship (20,000 annually, top-level awarded) *Clark University*
- 2018:** US Open (Go/Weiqi) - Winner 6k Division [\[standings\]](#) *American Go Association*

## Service

- Diversity & Inclusion Committee**, *American Go Association*. 2020–Present
- o Discussed and analyzed education initiatives, market research, and surveys for Go/weiqi outreach.
  - o Co-directed e-US Open Tournament 2020 with around 1000 players.
- Math Tutor**, *The Petey Greene Program*. 2018–2020
- Tutored weekly at MCI-Shirley as part of prison education program.
- President of Philosophy Club**, *Green River College*. 2017–2018
- Held weekly discussion of readings with faculty advisor; outreach.

## Tech Stack

**Proficient:** Java, Python, Kotlin,  $\LaTeX$ , JavaScript | **Familiar:** C/C++, R, Bash