

Cat Mai

✉ CMai@clarku.edu
🏠 catxmai.github.io
🌐 [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 the data that was used across multiple project and wrote the analysis 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
- Spearheaded the migration of NGSX's learning modules to RMarkdown.

Work Experience

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

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

QA, 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.
- Fall Fest '21 **Cat Mai**. *How YouTubers Participate in a Social Media Campaign: A Culture-Based Analysis of #TeamTrees*. [\[pdf\]](#). Fall 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

Service

Diversity & Inclusion Committee, American Go Association. 2020–Present

- Discussed and analyzed education initiatives, market research, and surveys for Go/weiqi outreach.
- Co-directed e-US Open Tournament 2020 with around 1000 players.

Tutor, *The Petey Greene Program*. 2018–2020

Tutored math 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