Cat Mai

Email: cat.mai@nyu.edu
Homepage: catxmai.github.io
GitHub: github.com/catxmai

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EDUCATION		
	Ph.D. Computer Science, New York University (NY, USA)	2022–Present
	Advisor: Damon McCoy, Center for Cybersecurity	
	Focus: usable privacy, social media auditing, targeted advertising.	
	B.A. Computer Science,	
	B.A. (Hons) Mathematics, Clark University (MA, USA)	2018–2022
	Advisor: Michael Satz	

RESEARCH EXPERIENCE

Research Associate, Agricultural Impacts Group @ Clark University — Jan–Aug 2022

Mentor: Lyndon Estes
- Trained, integrated features, and ran inference for deep learning models on AWS.
- Refined CNN models to classify crop types and regress on field boundaries.

Research Assistant, Human–Computer Interaction @ Brown University — May–Sep 2021

Mentors: Jeff Huang, Talie Massachi
- Worked on Automotion, a usability test of mobile device interaction. I modified, retrained machine learning models like CNN, Random Forest, SVM to predict user's affect.
- Submitted manuscript to IMWUT '21. Our paper reveals insights about using human labelers vs. ML models to predict user emotion from mobile gyroscope data.

Research Assistant, Clark University — Feb 2020–Jun 2021

Mentor: Shuo Niu
- Co-author and maintainer of the lab's Python package
- Our papers identified patterns in parasocial relationships and civic engagement on YouTube.

TEACHING EXPERIENCE

Graduate Teaching Assistant, New York University — Feb 2025–Present

Lead weekly labs and office hours for Design & Analysis of Algorithms.

Teaching Assistant, Clark University — Aug 2019–May 2022

Lead weekly labs and office hours. Prepare solutions and grade assignments.

Computer Science	Data Structures, Discrete Structures, Automata Theory
Mathematics	Discrete Mathematics, Honors Calculus I–II, Multivariate Calculus

AWARDS

Future Leader PhD Fellowship, New York University	2022–2024
LEEP Research Fellow, Clark University	2020
Richard Traina Scholarship, Clark University	2018–2022

TECHNICAL

Languages	Python, Java, SQL, R, JavaScript, LaTeX
Tools	Docker, Google Cloud Platform, Amazon Web Services
Skills	Data analysis, Statistical inference, Experiment design, Academic publication

VOLUNTEER AND SERVICES	**Math Tutor**, Getting Out Staying Out	2023–Present
	Diversity & Inclusion Committee, American Go Association	2020–2023
	Math Tutor, Massachusetts Correctional Institution	2018–2020

PUBLICATIONS · * = equal contribution. Some articles list authors alphabetically.

CONFERENCE PAPERS

PETS '25 · **Cat Mai**, Bruno Coelho, Julia Kieserman, Lexie Matsumoto, Kyle Spinelli, Eric Yang, Athanasios Andreou, Rachel Greenstadt, Tobias Lauinger, and Damon McCoy. "More and Scammier Ads: The Perils of YouTube's Ad Privacy Settings". [pdf].

Remote Sensing · Sam Khallaghi, Rahebeh Abedi, Hanan Abou Ali, Hamed Alemohammad, Mary Dziedzorm Asipunu, Ismail Alatise, Nguyen Ha, Boka Luo, **Mai, Cat**, Lei Song, et al. "Generalization Enhancement Strategies to Enable Cross-Year Cropland Mapping with Convolutional Neural Networks Trained Using Historical Samples". *Remote Sensing.* [doi].

EGU24 · Lyndon Estes, Sam Khallaghi, Rahebe Abedi, Mary Asipunu, Nguyen Ha, Boka Luo, **Mai, Cat**, Amos Wussah, Sitian Xiong, and Yao-Ting Yao. "Simple temporal domain adaptation techniques for mapping the inter-annual dynamics of smallholder-dominated croplands over large extents". *EGU General Assembly Conference Abstracts.* [doi].

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 2021.* [doi] [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 Conference on Human Factors in Computing Systems 2021.* [doi] [pdf].

POSTERS & EXTENDED ABSTRACTS

Fall Fest '21 · Dinithi Silva-Sassaman, **Cat Mai**, Jing Qian, and Jeff Huang. *Predicting Emotion and Attention from Smartphone Behavioral Data.* [pdf]. Fall Fest '21 Clark University.

CSCW '21 · Katherine McKim, **Cat Mai**, Danielle Hess, and Shuo Niu. *Investigating Drug Addiction Discourse on YouTube.* [pdf].

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.

Class report, 2021 · *Numerical Analysis: Tension Spline Interpolation.* [pdf].

Class report, 2020 · *Emotional Analysis Via Content Creation on YouTube During COVID-19.* [pdf].

SELECT COURSEWORK	**Applied** {Application, Network, Web} Security, Quantitative Finance, Cyber Law	
	Theory Numerical Analysis, Quantum Computing, Abstract Algebra, Real Analysis	