Jackie Chan

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https://jackiec1998.github.io/

Statement of Purpose

I am a researcher in social computing, a subfield within human-computer interaction (HCI), who investigates how algorithmic ranking and curation shape online communities and user behavior. My work combines large-scale empirical analyses, causal inference, Bayesian modeling, and randomized online experiments with the design of scalable, fault-tolerant data pipelines and multi-terabyte database systems. This interdisciplinary approach has led to publications at premier conferences CHI and ICWSM, with applications to content moderation, algorithmic transparency, and the governance of algorithmic systems.

Education

University of Illinois Urbana-Champaign — **Urbana, IL**
Ph.D. in Computer Science; 4.0 GPA — *Sep. '20 – Jun. '26 (Expected)*
Thesis Title: Quantifying the Impacts of Algorithmic Ranking on Social Media Trending Feeds
Advisor: Dr. Eshwar Chandrasekharan

Carleton College — **Northfield, MN**
B.A. in Computer Science & Mathematics; Cum Laude — *Sep. '16 – Jun. '20*

Experience

Graduate Research Assistant — **Urbana, IL**
Department of Computer Science, University of Illinois Urbana-Champaign — *Sep. '21 – Present*
Advisor: Dr. Eshwar Chandrasekharan

- Investigate how social media curation algorithms influence user behavior and community dynamics through mixed-methods research, combining large-scale quasi-experiments, causal inference with Bayesian modeling, and randomized online experiments.
- Develop and maintain scalable, fault-tolerant data pipelines in Python and Docker to continuously collect and archive Reddit data; manage multi-terabyte datasets in Postgres and MongoDB, ensuring high availability for lab-wide access.
- Analyze large-scale social media datasets using Python's pandas and advanced regression techniques; produce publication-ready visualizations with Matplotlib and Plotly to inform content moderation strategies.

Software Engineering Intern — **Eagan, MN**
Thomson Reuters — *Jun. '19 – Nov. '19*

- Maintained and enhanced an internal single-page application (SPA) built with the Aurelia JavaScript framework, Express, and MariaDB, while collaborating within an Agile Scrum team.

Undergraduate Research Assistant — **Northfield, MN**
Department of Computer Science, Carleton College — *Mar. '18 – Sep. '19*
Advisor: Dr. Amy Csizmar Dalal

- Published at the premier human-computer interaction conference (CHI) and presented research on users' familiarity of common home network troubleshooting terminology.

Publications

The Ranking Effect: How Algorithmic Rank Influences Attention on Social Media — **CHI '26 (Under Submission)**
Jackie Chan, Fred Choi, Koustuv Saha, Eshwar Chandrasekharan
https://arxiv.org/abs/2502.20491

What's Trending on Reddit, and Why?: A Large-Scale Empirical Audit of Algorithmic Curation on the r/popular Feed — **ICWSM '26**
Jackie Chan, Fred Choi, Koustuv Saha, Eshwar Chandrasekharan
https://arxiv.org/abs/2509.18440

Understanding Community Resilience: Quantifying the Effects of Sudden Popularity via Algorithmic Curation **ICWSM '24**
Jackie Chan, Charlotte Lambert, Fred Choi, Stevie Chancellor, Eshwar Chandrasekharan
https://doi.org/10.1609/icwsm.v18i1.31310

Community Resilience: Quantifying the Disruptive Effects of Sudden Spikes in Activity within Online Communities **CHI Extended Abstracts '22**
Jackie Chan, Aditi Atreyasa, Stevie Chancellor, Eshwar Chandrasekharan
https://doi.org/10.1145/3491101.3519813

Teaching

CS 105: Introduction to Computer Science for Non-Technical Majors **Urbana, IL**
Graduate Teaching Assistant
Instructors: Dr. Colleen Lewis, Dr. Katie Cunningham, Dr. Max Fowler
Semesters Taught: Fall '22*, Spring '23*, Fall '23, Spring '24, Fall '24*, Spring '25, Fall '25
- Taught 2–3 weekly recitations of 30–40 students covering Python programming, Excel, and data science/ visualization fundamentals.

CS 516: Data Visualization **Urbana, IL**
Graduate Teaching Assistant
Instructor: Dr. John Hart
Semesters Taught: Summer '25
- Support instruction in a 400-student course by grading projects and providing timely assistance on course forums; reinforce key concepts using Tableau and D3.

CS 124/125: Introduction to Computer Science **Urbana, IL**
Graduate Teaching Assistant
Instructor: Dr. Geoffrey Werner Challen
Semesters Taught: Fall '20, Spring '21, Summer '21, Summer '22*, Summer '23
- Taught Java and Kotlin to computer science undergraduates, created over 30 hours of video and audio content on programming topics, and assisted in debugging Android final projects.

**Ranked as Excellent by Students*

Awards, Honors, & Service

Graduate Research Fellowship Program Honorable Mention **Urbana, IL**
National Science Foundation *Apr. '22*
- Awarded to graduate students in STEM working on research with high intellectual merit and broader impacts.

Outstanding Teaching Assistant Award **Urbana, IL**
Department of Computer Science, University of Illinois Urbana-Champaign *Spring '21*
- Awarded for service in CS 124/125 based on recognition by faculty and student evaluations.

Reviewer **Remote**
CHI, CSCW, ICWSM *Apr. '21 – Present*
- Peer reviewer for top-tier conferences in human-computer interaction and computational social science.

Page Scholar **Northfield, MN**
Page Education Foundation *Sep. '16 – Jun. '20*
- Ran annual service projects helping students become first-generation college students.

Technical Skills

Programming Languages: Python, JavaScript/HTML/CSS, TypeScript, Java, Kotlin

Other Technologies: LaTeX, Git, database management systems (Postgres, MongoDB), SQL, web development (React), pandas, NumPy, Matplotlib, Linux/Unix