

Yingchen (Eric) Ma

Computer Science Ph.D. Candidate, Georgia Institute of Technology, Atlanta, GA 30308

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Education

- Ph.D. in Computer Science, **Georgia Institute of Technology** (Aug 2023 - May 2027)
Advisor: [Srijan Kumar](#). *Planned minor:* Public Policy. *GPA:* 4.00/4.00.
- M.S. in Computer Science, **Georgia Institute of Technology** (Aug 2021 - May 2023)
Specialization: Machine Learning. *GPA:* 3.78/4.00.
Award: Marshal D. Williamson Fellowship, April 2023, \$1.5K USD.
- B.S. in Computer Science, **University of Michigan** (Sep 2017 - May 2021)
Minor: Music. *GPA:* 3.54/4.00.

Research Experience

- Graduate Research Assistant, **Georgia Institute of Technology** (Aug 2022 - present)
Projects: See “Projects” section below.
Topics / Research Interests:
 - Natural Language Processing
 - Large Language Models
 - Multimodal Learning
 - Online (Counter-)Misinformation
 - Social Media Understanding
 - Computational Social Science

Publications

Conferences

- *Characterizing and Predicting Social Correction on Twitter* [[paper](#)]
Yingchen (Eric) Ma, Bing He, Nathan Subrahmanian, Srijan Kumar.
15th ACM Web Science Conference (**WebSci '23**). **Paper Presentation.**
- *Corrective or Backfire: Characterizing and Predicting User Response to Social Correction* [[paper](#)]
Bing He, **Yingchen (Eric) Ma**, Mustaque Ahamad, Srijan Kumar.
16th ACM Web Science Conference (**WebSci '24**).
- *UniGuard: Towards Universal Safety Guardrails for Jailbreak Attacks on Large Language Models* [[arXiv](#)]
Sejoon Oh, Yiqiao Jin, Megha Sharma, Donghyun Kim, **Yingchen (Eric) Ma**, Gaurav Verma, Srijan Kumar.
Deployable AI Workshop @ The 39th AAAI Conference on Artificial Intelligence (**AAAI '25**).

Journals

- *Measuring and Mitigating Group Inequalities In Resource Allocation* [[paper](#)]
Arya Farahi, Angela Ting, **Yingchen (Eric) Ma**.
ACM Journal on Responsible Computing (JRC). 2024.

Manuscripts in Submission

- *Demographic Disparity in Social Correction of Online Misinformation*
Yingchen (Eric) Ma, Nathan Subrahmanian, Bing He, Srijan Kumar.
(In submission at IEEE Transactions on Computational Social Systems).
- *Performing Extremism: How Social Media Encourages Extreme Performances for Men's Rights Activists and Fosters a Culture of Hate*
Ciabhan L. Connelly, Shravika Mittal, **Yingchen (Eric) Ma**, Eric Gilbert, Amy Bruckman.
(In submission at CSCW '25).

Projects

Current Research Projects

- **Evaluating and Improving Robustness of Multimodal LLMs:** Leading a project to benchmark and improve the robustness of state-of-the-art multimodal large language models to realistic and plausible semantic perturbations inside the text and image modalities.
 - Advised by [Prof. Srijan Kumar](#), Assistant Professor, CSE @ Georgia Tech
- **Analyzing Demographic Disparities in Social Media Counter-Misinformation:** Leading a project to investigate differences in the creation and receiving of social media posts that counter or debunk online misinformation, measured across user demographic attributes such as race, sex, and education level.
 - Advised by [Prof. Srijan Kumar](#), Assistant Professor, CSE @ Georgia Tech

Previous Research Projects

- **Analyzing and Predicting Twitter Counter-Misinformation:** Led a project to investigate features of misinformation-spreading social media posts and users that correlate with increased likelihood to receive counter-misinformation replies. [[repository](#)]
 - Advised by [Prof. Srijan Kumar](#), Assistant Professor, CSE @ Georgia Tech
- **Urban Road Repair Proposal:** Led a project to develop an end-to-end decision pipeline to propose road repairs in an urban setting, with the objective of maximizing economic, demographic, and accessibility related benefit to the community. [[repository](#)]
 - Advised by [Prof. Arya Farahi](#), Assistant Professor, SDS @ UT Austin
- **Topic Modeling of r/MensRights:** Performed Latent Dirichlet Allocation (LDA) to create and analyze clusters of common topics discussed in Reddit's r/MensRights community.
 - Contributed to project advised by [Prof. Amy Bruckman](#), Professor, IC @ Georgia Tech

Selected Course Projects

- **Improving LLM Humor Understanding:** Led a project to improve a Llama-2-7b model's ability to generate clear and insightful explanations for puns through finetuning and few-shot prompting. [[repository](#)]
 - Course final project for CS 8803 LLM (Large Language Models) @ Georgia Tech
- **Analysis of Anxiety Discussion on Twitter:** Investigated the relationship between features of tweets that aim to seek mental health support for anxiety, and the likelihood to receive supportive replies. [[repository](#)]

- Course final project for CS 6474 (Social Computing) @ Georgia Tech

Professional Experience

- Technology Solutions Intern, **Pioneer Natural Resources**, Irving, TX (May - Aug 2023)
 - Performed machine learning based risk assessment on physical, chemical, and operational factors that contribute to scaling and subsequent failure of electrical submersible pumps (ESPs) used for oil extraction; presented insights to company.
- Software Engineer Intern, **Honeywell**, Atlanta, GA (May - Aug 2022)
 - Implemented automation enhancement tools using Python and Docker which expanded the capabilities of the company's performance testing suite.
- Programming Intern, **Wal Fuel Systems**, Livonia, MI (Dec 2021 - Apr 2022, Jun 2024)
 - Implemented vehicle routing algorithms which helped the company generate more distance, time, and fuel efficient truck delivery schedules. [[repository from 2022](#)]

Academic Service

PC Member / Reviewer

- **Conferences:** ICWSM '25, CHI '25
- **Journals:** Harvard Kennedy School (HKS) Misinformation Review