

# ERICA CHIANG

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## EDUCATION

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<b>Cornell University</b> Ph.D. candidate in Computer Science	Aug 2023 - present
<b>Carnegie Mellon University</b> B.S. in Computer Science, Minor in Human-Computer Interaction <i>Cumulative GPA: 3.95 / 4.0</i> <i>Phi Beta Kappa, University Honors, School of Computer Science College Honors</i>	Aug 2019 - May 2023

## AWARDS

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<b>Best Poster Award, IOE-ISyE-MS&amp;E Rising Stars Workshop</b>	2026
<b>Rising Star in IOE-ISyE-MS&amp;E, University of Michigan Industrial and Operations Engineering</b>	2026
<b>Digital Life Initiative Doctoral Fellowship</b>	2025
<b>Best Paper Award, CHIL</b>	2025
<b>Digital Life Initiative Doctoral Fellowship</b>	2025
<b>Siegel PiTech PhD Impact Fellowship</b>	2025
<b>NSF Graduate Research Fellowship</b>	2023
<b>Phi Beta Kappa</b>	2023
<b>Carnegie Mellon Senior Leadership Recognition Award</b>	2023
<b>Andrew Carnegie Society Scholar</b> <i>40 out of 2000 students selected for academic excellence and leadership</i>	2023
<b>Undergraduate Student Research Competition 2nd Place, ACM SIGCOMM</b>	2022
<b>Johns Hopkins Applied Physics Laboratory Positive Influence Award</b> <i>1 out of 200 interns selected for exceptional performance and leadership</i>	2022

## PUBLICATIONS

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- Personalized Recommendations Without Inducing Congestion: Mitigating Disparities in the NYC High School Match**  
**Erica Chiang**, Kenny Peng, Rebecca Lichtenstein, Kristen O'Neil, Lianna Wright, Jon Kleinberg, Eva Tardos, Nikhil Garg  
*ACM Conference on Economics and Computation, 2026 (EC 26)*  
*International Conference on Computational Social Science, 2026 (IC2S2 26)*  
*ESIF Economics and AI+ML Meeting, 2026 (ESIF-AIML 26)*  
*Behavioral Decision Research in Management Conference, 2026 (BDRM 26)*  
🏆 *Best Poster Award at IOE-ISyE-MS&E Rising Stars Workshop 2026*  
🏆 *Plenary Talk at IC2S2 2026 (18 of 784 submissions)*
- Learning Disease Progression Models That Capture Health Disparities**  
**Erica Chiang**, Divya Shanmugam, Ashley Beecy, Gabriel Sayer, Deborah Estrin, Nikhil Garg, Emma Pierson  
*Conference on Health, Inference, and Learning, 2025 (CHIL 25)*  
*Machine Learning for Health Symposium, 2024 (ML4H 24)*  
*ICML Workshop on Structured Probabilistic Inference and Generative Modeling, 2024 (SPIGM 24)*  
🏆 *Best Paper Award at CHIL 2025*
- SurgeProtector: Mitigating Temporal Algorithmic Complexity Attacks using Adversarial Scheduling**  
Nirav Atre, Hugo Sadok, **Erica Chiang**, Weina Wang, and Justine Sherry  
*ACM Special Interest Group on Data Communication, 2022 (SIGCOMM 22)*

## SELECTED TALKS

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### 1. **Personalized Recommendations without Inducing Congestion: Mitigating Disparities in the NYC High School Match**

- *Market Innovation Workshop, Spring 2026*
- *Guest lecture, Practical Applications in Machine Learning (INFO 5368) @ Cornell Tech, Spring 2026*
- *Guest lecture, Networks and Markets (CS 5854 / ORIE 5138) @ Cornell Tech, Spring 2026*
- *EAAMO Urban Data Working Group, Spring 2026*
- *Cornell Tech Digital Life Initiative Seminar, Spring 2026*
- *Guest lecture, Applied Data Science (ORIE 5355) @ Cornell Tech, Fall 2025*
- *Institute for Operations Research and the Management Sciences, Fall 2025 (INFORMS 25)*

## SELECTED POSTERS

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### 1. **Robust Heuristics: Attacks and Defenses on Job Size Estimation for WSJF Systems**

**Erica Chiang**, Nirav Atre, Hugo Sadok, Weina Wang, and Justine Sherry

ACM SIGCOMM Poster Session, 2022

 *Runner-up of the ACM SIGCOMM 2022 Undergraduate Student Research Competition*

## WORK EXPERIENCE

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**Johns Hopkins Applied Physics Laboratory**, Computer Science Intern

Summer 2022

*Contributed to 2 projects. (1) Chief Digital and Artificial Intelligence Office aircraft readiness model: testing, evaluation, and benchmark model development; (2) Airborne Collision Avoidance System (ACAS): designed and deployed a full stack web application for use in the development of ACAS software.*

**NASA Jet Propulsion Laboratory**, Software Engineer Intern

Summer 2021

*Developed software to monitor telemetry data traveling through NASA Deep Space Network and created an interactive webpage for visualizing and accessing the data in real time, intended for real world use on vehicles such as NASA Mars Perseverance Rover.*

## PREVIOUS RESEARCH EXPERIENCE

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**Characterizing Social Media Narratives**, CMU CASOS Lab

Sept 2022 - May 2023

Senior Thesis Project, Advised by Kathleen Carley

*Analyzed Twitter data to identify patterns in the linguistic and psychological cues that different actors tend to use, in order to understand how this shapes their influence over online communities*

**Adversarial Job Scheduling in Network Functions**, CMU SNAP Lab

Jan 2021 - Aug 2022

Advised by Justine Sherry and Weina Wang

*Studied packet-scheduling algorithms that mitigate the damage of algorithmic complexity attacks (ACA) and led a project to explore the theoretical implications of using heuristics for packet job size estimation*

**Bias in ML Algorithms**, CMU CHIMPS Lab

Aug 2020 - Dec 2020

Advised by Jason Hong, Motahhare Eslami, Ken Holstein, Hong Shen

*Developed research questions and interview protocols to study how people search for, identify, and respond to bias in machine learning algorithms, with the goal of creating a crowd audit platform*

## TEACHING EXPERIENCE

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**PiTech Impact Studio** (TECH 5930 @ Cornell Tech), Teaching Assistant

Spring 2026

**Data Science in the Wild** (CS 5304 @ Cornell Tech), Teaching Assistant

Spring 2025

**Mathematical Foundations for Computer Science** (15-151/21-128 @ CMU), Teaching Assistant

Fall 2021

*Taught two recitation sections per week, held weekly Office Hours, designed exercises, prepared & taught exam review sessions (to 200 students each time)*

## MENTORING & SERVICE

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<b>Reviewer</b> , Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO)	2026
<b>Reviewer</b> , International Conference on Computational Social Science (IC2S2)	2026
<b>Social Chair</b> , PhDs at Cornell Tech	2025 - 2026
<b>Visit Day Czar</b> , Cornell CS Department	2025
<b>Reviewer</b> , ACM Web Conference	2025
<b>Mentor</b> , Cornell CS PhD Application Support Program	Fall 2023, Fall 2024
<b>Mentor</b> , CMU Society of Women Engineers & SCS Mentorship Programs	2022 - 2023
<b>Orientation Counselor</b> , CMU First-Year Orientation	2021

## LEADERSHIP / EXTRACURRICULAR INVOLVEMENTS

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<b>CMU C# Choir</b> President (2021-22) Vice President Internal (2020-21) Design Chair (2019-20, 2022-23)	2019 - 2023
<b>CMU Sweepstakes (“Buggy”)</b> Women’s Push Captain (2022-23): <i>Recruit and lead team of runners to compete in annual Spring Carnival</i>	2019 - 2023
<b>CMU Taiwanese Students Association</b> Secretary (2021-22) Freshman Representative (2019-20)	2019 - 2023
<b>CMU Club Soccer Team &amp; Lake Oswego High School Varsity Soccer</b>	2015 - 2021
<b>Lake Oswego High School Student Government</b> Student Body Vice-President (2018-19)	2018 - 2019
<b>Lake Oswego High School Varsity &amp; Club Track and Field</b> Team Captain (2019) <i>Oregon Class 6A (largest division) All-State First Team x2</i> <i>High school record holder</i>	2015 - 2019
<b>Physics Lab Educator</b> , Oregon Museum of Science & Industry <i>Developed new lab demonstrations and experiments for museum visitors, worked with children to teach physics concepts through visual and interactive activities</i>	2016 - 2019

## SKILLS

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**Languages:** C, Python, Java, HTML, JavaScript, CSS, MATLAB

**Art and Design:** [ericchiang.wixsite.com/website-1](http://ericchiang.wixsite.com/website-1)

*National Scholastic Art Awards 2019: 1 Gold Key, 2 Silver Keys*