

ERICA CHIANG

erica-chiang.github.io ◇ esc99@cornell.edu ◇ Last updated: May 2025

EDUCATION

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

AWARDS

Digital Life Initiative Doctoral Fellowship	2025
Siegel PiTech PhD Impact Fellowship	2025
NSF Graduate Research Fellowship	2023
Phi Beta Kappa	2023
Carnegie Mellon Senior Leadership Recognition Award	2023
Andrew Carnegie Society Scholar 40 out of 2000 students selected for academic excellence and leadership	2023
Undergraduate Student Research Competition 2nd Place, ACM SIGCOMM	2022
Selected for Cornell, Maryland, Max Planck Pre-Doctoral Research School	2022
Johns Hopkins Applied Physics Laboratory Positive Influence Award 1 out of 200 interns selected for exceptional performance and leadership	2022

PAPERS

- 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*)
- 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 POSTERS

- 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 '22 Undergraduate Student Research Competition

WORK EXPERIENCE

Johns Hopkins Applied Physics Laboratory , Computer Science Intern 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.	Summer 2022
NASA Jet Propulsion Laboratory , Software Engineer Intern 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.	Summer 2021

PREVIOUS RESEARCH EXPERIENCE

Characterizing Social Media Narratives , CMU CASOS Lab	Sept 2022 - May 2023
Senior Thesis Project, Advised by Kathleen Carley <i>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</i>	
Adversarial Job Scheduling in Network Functions , CMU SNAP Lab	Jan 2021 - Aug 2022
Advised by Justine Sherry and Weina Wang <i>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</i>	
Bias in ML Algorithms , CMU CHIMPS Lab	Aug 2020 - Dec 2020
Advised by Jason Hong, Motahhare Eslami, Ken Holstein, Hong Shen <i>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</i>	

TEACHING EXPERIENCE

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

MENTORING & SERVICE

Social Chair , PhDs at Cornell Tech	2025 - 2026
Visit Day Czar , Cornell CS Department	2025
Reviewer , ACM Web Conference	2025
Mentor , Cornell CS PhD Application Support Program	2023, 2024
Mentor , CMU Society of Women Engineers & SCS Mentorship Programs	2022 - 2023
Orientation Counselor , CMU First-Year Orientation	2021

EXTRACURRICULAR INVOLVEMENTS

CMU C# Choir	2019 - 2023
President (2021-22) Vice President Internal (2020-21) Design Chair (2019-20, 2022-23)	
CMU Sweepstakes ("Buggy")	2019 - 2023
<i>Women's Push Captain (2022-23): Recruit and lead team of runners to compete in annual Spring Carnival</i>	
CMU Taiwanese Students Association	2019 - 2023
Secretary (2021-22) Freshman Representative (2019-20)	
CMU Club Soccer Team & Lake Oswego High School Varsity Soccer	2015 - 2021
Lake Oswego High School Student Government	2018 - 2019
Student Body Vice-President (2018-19)	
Lake Oswego High School Varsity & Club Track and Field	2015 - 2019
Team Captain (2019) <i>Oregon Class 6A (largest division) All-State First Team x2</i> <i>High school record holder</i>	

Physics Lab Educator, Oregon Museum of Science & Industry

2016 - 2019

Developed new lab demonstrations and experiments for museum visitors, worked with children to teach physics concepts through visual and interactive activities

SKILLS

Art and Design: ericachiang.wixsite.com/website-1

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