Matthew M. Casey

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EDUCATION

Northwestern University, Evanston, IL   Sept. 2024 – Present
PhD in Computer Science
Advisor: Edith Elkind

Northeastern University, Boston, MA   Sept. 2020 – May 2024
Bachelors of Science in Computer Science and Mathematics
GPA: 3.951 / 4.000 (Summa Cum Laude)

PUBLICATIONS

Casey, Matthew M. and Edith Elkind (2025). "Justified Representation: From Hare to Droop". In: *To Appear: WINE 2025*.

Casey, Matthew, Rajmohan Rajaraman, David Stalfa, and Cheng Tan (2024). "Scheduling Splittable Jobs on Configurable Machines". In: *APPROX/RANDOM 2024*.

Casey, Matthew and Nianjun Zhou (2020). "Analysis of Viability of TCGA and GTEx Gene Expression for Gleason Grade Identification". In: *International Conference on Artificial Intelligence in Medicine*, pp. 475–485.

Casey, Matthew, Baldwin Chen, Jonathan Zhou, and Nianjun Zhou (2019). "A machine learning approach to prostate cancer risk classification through use of RNA sequencing data". In: *International Conference on Big Data*, pp. 65–79.

HONORS AND AWARDS

PEAK Ascent Award, Northeastern University   2022
$3000 Research Funding

Dean's List, Northeastern University   2020 – 2024

Honors Program, Northeastern University   2020 – 2024

INVITED PRESENTATIONS

Justified Representation: From Hare to Droop
WINE 2025   Dec 2025
CMU Econ-CS Seminar   Nov 2025
Northwestern CS Theory Seminar   Nov 2025
UChicago CS Theory Seminar   Nov 2025
Fairness in Social Choice Workshop   July 2025

Scheduling Splittable Jobs on Configurable Machines
Northwestern CS Theory Seminar   Feb 2025
APPROX 2024   Aug 2024

Exploring Resilient Functions: Can We Do Better?
Northeastern RISE Expo 2023 [Poster]   Apr 2023

Analysis of Viability of TCGA and GTEx Gene Expression for Gleason Grade Identification
AIME 2020   Aug 2020

A Machine Learning Approach to Prostate Cancer Risk Classification Through Use of RNA Sequencing Data
BigData 2019   June 2019

ACADEMIC SERVICE

Research Mentoring: Elena Li (2025 – Present)

Reviewing: AAMAS 2026, COMSOC 2025, ESA 2025

Departmental Service: Organizer of Northwestern PhD Student Seminar (Fall 2025 –Present), Organizer of Advisor/Advisee Relations Workshop (Fall 2025), Co-Organizer of Northwestern CS PhD Student Orientation Day (2025), Organizer of Northwestern CS Theory Reading Group (Winter and Spring 2025), Member of Northwestern CS PhD Advisory Council (CSPAC) (2025 – Present)

RESEARCH EXPERIENCE

Algorithms Research Co-op   Jan 2023 – June 2023
Advised by: Rajmohan Rajaraman, Northeastern University

Exploring Resilient Functions: Can We Do Better?   June 2022 – Dec 2022
Advised by: Emanuele Viola, Northeastern University

INDUSTRY EXPERIENCE

Adversarial AI Researcher, MORSE Corp, Boston, MA   Jan 2022 – Jun 2022
Researched, reproduced and extended adversarial AI patch attacks from the literature to new data types.