

EDMUND (ED) CHEN

PERSONAL INFORMATION

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EDUCATION

Courant Institute, New York University NEW YORK, NY
PhD in Mathematics (Expected). 08/2023 – 05/2028

Stanford University STANFORD, CA
MS in Computational and Mathematical Engineering (On Leave). 08/2022 – 08/2023

Georgia Institute of Technology ATLANTA, GA
BS in Mathematics. 08/2020 – 08/2022

University of California, Berkeley BERKELEY, CA
08/2018 – 08/2020

RESEARCH

Mathematics, New York University NEW YORK, NY
PhD Student 08/2023 – Present

- Research in numerical methods for PDEs and high-performance parallel computing

Mechanical Engineering, Stanford University STANFORD, CA
Research Assistant 09/2022 – 03/2023

- JAX accelerated convection-diffusion problems with Local DG methods

EECS, University of California, Berkeley BERKELEY, CA
Research Assistant 03/2019 – 12/2019

- Lightweight trajectory optimization algorithms for mass-deployed solar sails

WORK

Julia Computing (now JuliaHub) CAMBRIDGE, MA
Modeling and Simulation Intern, JuliaSim 09/2021 – 04/2022

- Pseudo-transient continuation accelerated steady-state solvers for JuliaSim

NASA Supercomputing MOUNTAIN VIEW, CA
Research Associate, Computational Aerosciences 05/2021 – 08/2021
Research Associate, Computational Aerosciences 03/2020 – 09/2020

- Portable parallelization on heterogeneous CPU/GPU clusters

TEACHING

Grader. New York University
MATH-GA 2020: Numerical Methods II * SPRING 2025

TA. Stanford University
CS 246: Mining Massive Datasets * † SPRING 2023
CS 448B: Data Visualization * WINTER 2023
CS 149: Parallel Computing † AUTUMN 2022

Head TA/TA. Georgia Institute of Technology
CSE 6242: Data and Visual Analytics * † SPRING 2022
CSE 6242: Data and Visual Analytics * † FALL 2021

Grader. Georgia Institute of Technology
Math 6321: Complex Analysis * SPRING 2022

Grader. University of California, Berkeley
Math 121A: Mathematical Methods for Physical Sciences I FALL 2021
Math 121B: Mathematical Methods for Physical Sciences II SPRING 2021
Math 185: Complex Analysis FALL 2020

* Graduate Courses

† Large Courses (150+ students)

OTHER

Courant Student Organization. VP 08/2024 – 08/2025

Space Technologies at California. Control Systems Engineer 01/2020 – 12/2020
Quantum Gyroscope CubeSat awarded \$300k by NASA CSLI, launched early 2022.

Buzzbook Course Platform. Founder 06/2020 – 03/2022
Course discovery platform at Georgia Tech.

Tzu Chi Charity Foundation. Volunteer 05/2017 – 08/2022

SOFTWARE AND LANGUAGES

Python, Julia, Matlab, C, C++, SML, Java, JavaScript, OpenMP, MPI, CUDA, SQL, Spark, L^AT_EX.