David Owen Horace Cutler

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Education

Tufts University

Sept. 2022 - present

BS in Mathematics

- o GPA: 4.0/4.0
- o Coursework: Real Analysis I, Real Analysis II, Analysis*, Functional Analysis*, Harmonic Analysis, Abstract Algebra I, Abstract Algebra II, Algebra II*, Topics in Algebra, Differential Forms in Algebraic Topology*, Differential Geometry*, Type Theory and Category Theory*, Philosophy of Mathematics

(* denotes graduate-level coursework)

Experience

Undergraduate Researcher

College Park, MD

June 2024 - July 2024

 $University\ of\ Maryland$

- Participated in research on the interactions between complex and complex geometry with Professor Tamás Darvas and some fellow undergraduates.
- $\circ\,$ Proved many novel results, culminating in a paper.
- Presented research at multiple conferences, including the AMS-MAA-SIAM special session on undergraduate research at JMM 2025.

Real Analysis Grader/TA

Medford, MA

Tufts University

Sept. 2023 - present

- Served as the primary grader for the first class in Tufts' undergraduate real analysis sequence, grading the majority of each weekly problem set.
- o Hosted weekly office hours and practicums.
- Voluntarily and independently held small tutoring sessions, as well as exam review sessions.

Publications

The Hausdorff distance and metrics on toric singularity types

Nov. 2024

A. Aitokhuehi, B. Braiman, D. Cutler, T. Darvas, R. Deaton, P. Gupta, J. Horsley, V. Pidaparthy, J. Tang

preprint, arxiv:2411.11246

Awards

Martin Guterman Award

Medford, MA

Tufts University

April 2024

• Awarded to the first or second-year student at Tufts University with the highest academic achievement in math.

Additional Skills

Languages: English, Danish, Mandarin Chinese (limited proficiency)

Programming Languages: Python, Rust, and LATEX