NATHANIEL SAUERBERG

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212 Paseo Del Rio
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EDUCATION

University of Texas, Austin, TX — *Aug 2021 - Present*
Ph.D. in Computer Science (expected)

University of Wisconsin, Madison, WI — *Aug 2020 - Aug 2021*
Ph.D. Student in Computer Science — Overall GPA: 4.0

Carleton College, Northfield, MN — *Sep 2016 - Jun 2020*
B.A. in Computer Science and Mathematics — Overall GPA: 3.86
Magna Cum Laude; Distinction in Computer Science; Phi Beta Kappa

Budapest Semesters in Mathematics (BSM), Budapest, Hungary — *Sep 2019 - Dec 2019*
Study abroad program in mathematics — Overall GPA: 4.0

RESEARCH INTERESTS

Algorithmic Mechanism Design and Game Theory, Computational Social Choice, and Fair Division;
Online, Approximation, Randomized, and Graph Algorithms; Algorithmic Fairness

WORKING PAPERS

A. Maran, J. McMahan, and **N. Sauerberg**.[†] Noble Deceit: Optimizing Social Welfare for Myopic Multi-Armed Bandits. *(Under Submission)*

G. Fickes, D. Green, J. Hook, K. McCready, K. Ryan, **N. Sauerberg**, and J. Stifano.[†] Proper Diameter of 2-connected Bipartite Graphs. *(Under Submission)*

(† denotes alphabetical ordering.)

PUBLICATIONS: PEER-REVIEWED CONFERENCE PROCEEDINGS

N. Raman[*], **N. Sauerberg**[*], J. Fisher, and S. Narayan. Classifying Wikipedia Article Quality With Revision History Networks. In *Proceedings of the 16th International Symposium on Open Collaboration*, 2020.

Z. Li, L. Yee, **N. Sauerberg**, I. Saxson, J. Williams, and A. Rafferty. Getting too personal(ized): The importance of feature choice in online adaptive algorithms. In *Proceedings of the 13th International Conference on Educational Data Mining*, pages 159–170, 2020.

(* denotes equal contribution.)

CONFERENCE PRESENTATIONS

"Noble Deceit: Optimizing Social Welfare for Myopic Multi-Armed Bandits" (2021). The 6th World Congress of the Game Theory Society. Virtual.

"Classifying Wikipedia Article Quality With Revision History Networks" (2020). The 16th International Symposium on Open Collaboration. Virtual.

"Maximum proper diameter of 2-connected graphs" (2019). Undergraduate Research Special Section, Joint Mathematics Meetings 2019. Baltimore, Maryland.

"Constructing a Family of Graphs with Maximum Proper Diameter" (2018). MAA North Central Section Fall 2018 Meeting. Southwest Minnesota State University. Marshall, Minnesota.

"Exploring Upper Bounds of Graph Proper Diameters" (2018). Northfield Undergraduate Mathematics Symposium (NUMS). Carleton College. Northfield, Minnesota.

POSTER PRESENTATIONS

"Noble Deceit: Optimizing Social Welfare for Myopic Multi-Armed Bandits" (2021). Contributed Poster Session 2, Twenty-Second ACM Conference on Economics and Computation. Virtual.

"Exploring Maximum Proper Diameter of Graphs" (2019) MAA Undergraduate Poster Session, Joint Mathematics Meetings 2019. Baltimore, Maryland.

"Communication Networks and Coloring Shortest Paths"(2018). Celebration of Excellence in Science Symposium. Carleton College. Northfield, Minnesota. *(By Invitation)*

"Graphs Attaining Maximum Proper Diameter" (2018). Student Research Symposium. Carleton College. Northfield, Minnesota.

"Constructing a Family of Graphs with Maximum Proper Diameter" (2018). MAA North Central Section Fall 2018 Meeting. Southwest Minnesota State University. Marshall, Minnesota.

HONORS AND AWARDS

Magna Cum Laude (top 15%), Carleton College	2020
Distinction in Computer Science, Carleton College	2020
Inducted into Phi Beta Kappa	2020
Nominated for membership in Sigma Xi	2020
Honors (top 15%), Budapest Semesters in Mathematics	2019
Outstanding Poster Award, Joint Mathematics Meetings	2019

RESEARCH AFFILIATIONS

Montana State University Computer Science REU	2019
Lafayette College Mathematics REU	2018

SERVICE

Research-Focused Mentoring of Undergraduates through the WISCERS Program	2021
Carleton Mathematics Department Student Tenure-Track Hiring Committee *(By Invitation)*	2020
Carleton Computer Science Department Student Hiring Committee *(By Invitation)*	2019
Carleton Mathematics Department Student Tenure-Track Hiring Committee *(By Invitation)*	2019

TEACHING EXPERIENCE

Teaching Assistant, University of Wisconsin   2020 - 2021

· CS240 Introduction to Discrete Math (Fall 2020)
· CS577 Introduction to Algorithms (Spring 2021)

Course Prefect, Carleton College 2018 - 2020

· CS111 Introduction to Computer Science (Fall 2018, Winter 2019, Spring 2019)
· CS201 Data Structures (Winter 2020, Spring 2020)