

Colin Crowley
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Address
222 South Carroll street
Madison, WI 53703

EDUCATION

PhD, Mathematics
University of Wisconsin, Madison
GPA: 4.00

Expected Spring 2023

Bachelor's degree with High Honors, Mathematics
Swarthmore College, Swarthmore, PA
Math GPA: 4.00, Overall GPA: 3.88

Spring 2018

Study Abroad
Budapest Semesters in Mathematics, Budapest Hungary

Fall 2017

ACADEMIC AND RESEARCH EXPERIENCE

Research in algebra and matroid theory
Supervised by Professor Noah Giansiracusa at Swarthmore

June – August 2017

- Using the cryptomorphism between a tropical Plücker vector and a matroid, we studied matroids from the perspectives of idempotent module theory and tropical linear algebra.

Research in speech recognition
Supervised by Florian Metz at Carnegie Mellon

June – August 2015

- Programmed an interactive virtual world robot to be used as an introduction to speech recognition systems. My project can be found at <https://github.com/srvk/IVW-v3> and the webpage of the larger project can be found at <http://speechkitchen.org/>

Teaching aid at Leap summer program
Computer science summer program at Carnegie Mellon

June – August 2015

- I taught the advanced programming track, where I guided high school students through problems such as computing convex hulls, dynamic programming, and implementing the minimax algorithm to make a Connect Four AI.

PUBLICATIONS

Colin Crowley, Noah Giansiracusa, and Joshua Munding. *A module-theoretic approach to matroids*. Submitted for publication to the Journal of Pure and Applied Mathematics - available at <http://arxiv.org/abs/1712.03440>

WORK EXPERIENCE

Software engineering intern
Bazaarvoice inc. in Austin Texas.

June – August 2016

- Worked on a team with three engineers to develop a tool for deleting data from the company's database, which is still used and maintained.

Languages and tools

Java	Advanced
Python	Advanced
Javascript	Advanced
L ^A T _E X	Advanced
Mathematica	Proficient
Common Lisp	Proficient
C++	Proficient
C	Familiar

HONORS

- Graduated with High Honors from Swarthmore College
- Highest Honors at Budapest Semesters in Mathematics