

# Quang Vu Dao

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<https://quangvdao.github.io>

## EDUCATION

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**University of Michigan, Ann Arbor**

Expected May 2022

Mathematics PhD, terminal MS expected 2022

**Columbia University**

September 2016 – May 2020

Mathematics & Computer Science, *summa cum laude*

**Relevant Courses:** Advanced Cryptography, Computational Complexity, Algebraic Geometry

## PREPRINTS & PUBLICATIONS

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1. Q. Dao, J. Wellman, C. Yost-Wolff, and S. Zhang, “**Rowmotion Orbits of Trapezoid Posets.**” Submitted.
2. Q. Dao, C. Meng, J. Wellman, Z. Xu, C. Yost-Wolff, and T. Yu, “**Extended Nestohedra and their Face Numbers.**” Submitted.

## RESEARCH EXPERIENCE

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**University of Michigan, Ann Arbor**

June 2021 - now

- Working with Prof. Paul Grubbs on various aspects of zero-knowledge proof systems.

**University of Minnesota, Twin Cities REU**

June 2019 – August 2019

- Conducted research on combinatorics and algebra under the supervision of Prof. Vic Reiner.
- Resulted in two preprints above.

**Columbia University REU**

May 2018 – July 2018

- Conducted research on knot theory and number theory under Prof. Jo Nelson and Prof. Ila Varma.

**Creative Machines Lab**

October 2017 – December 2017

- Conducted deep learning research under PhD candidate Oscar Chang in Prof. Hod Lipson’s lab.
- Tested ways to diversify feature vectors by loss function regularization.

## TEACHING & OUTREACH

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**University of Michigan | Graduate Student Instructor**

September 2020 – now

- Main instructor for Math 115: Calculus I.
- Directly taught a class of 16-18 students, which met for three times a week.

**Math and Science Summer Program | Mentor & Organizer**

July 2021

- Co-designed the curriculum for a two-week math camp for high school students in Vietnam, whose topics include error-correcting codes and Grobner basis.
- Sought funding and promote the program to Vietnamese students via social media.
- Mentored for the same program in 2017, covering topics on intransitive games and billiards.

**Columbia University | Teaching Assistant**

September 2017 – May 2020

- Graded homework and held office hours for multiple advanced math courses.

**HONORS & AWARDS**

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<b>Russell C. Mills Award</b>		2020
• Awarded to 2 seniors for excellence in computer science at Columbia		
<b>Professor Van Amringe Math Prize</b>		2017, 2018 & 2019
• Awarded annually to the top 3 non-senior students in math at Columbia		
<b>Putnam Math Competition</b>	Honorable Mention (top 50)	2016 & 2018
<b>International Mathematical Olympiad</b>	Silver Medal	2016