

Matthew Yuan

github.com/code-by-matt
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Education

- Princeton University**, Princeton, NJ September 2017–June 2021 (Expected)
- A.B. in Mathematics, 3.8 GPA.
 - Coursework includes Algorithms and Data Structures, Computational Geometry, Probability and Stochastic Systems, Linear Algebra, Multivariable Calculus, Combinatorics, and Real Analysis.

Skills

Technologies

- Java, Python, HTML/CSS, JavaScript, Django, PostgreSQL, Git, LaTeX.

Concepts

- Object-Oriented Programming, Machine Learning, Mathematical Reasoning, Teaching.

Languages

- English, Mandarin.

Projects

- Seam Carving**, class project April 2019
- Implemented an image resizing algorithm that preserves the image's content without cropping or stretching.
 - Tools: Java.
- Thue-Morse Connect Four**, code-by-matt.github.io/connect4 October 2018
- Front-end web app that plays a variant of Connect Four designed to eliminate the game's first player advantage by using a turn system based on the Thue-Morse sequence.
 - Tools: HTML/CSS, JavaScript.
 - Explored expanding functionality using Google Firebase during HackPrinceton Fall 2018.

Experience

- Algebraic Geometry Research**, Princeton University June 2019–Present
- Study Shafarevich's *Basic Algebraic Geometry 1* under Professor János Kollár.
 - Meet weekly with Prof. Kollár as part of a 7-person research group.
- Course Assistant**, Princeton University September 2018–Present
- Lead weekly problem sessions for about 50 students in Real Analysis and Linear Algebra.
 - Answer students' questions and guide students through homework problems.

Activities

- Author in Princeton Undergraduate Research Journal**, bit.ly/2W72vBR Spring 2019
- Presented a narrative explanation of Carl Friedrich Gauss's discovery that the regular seventeen-sided polygon is constructible using a compass and straightedge.
 - 1 of 5 papers selected for publication out of 23 total submissions.
- Editor of Profiles in Entrepreneurship**, medium.com/profiles-in-entrepreneurship October 2018–Present
- Manage a team of 4 writers for an intercollegiate publication that provides student entrepreneurs actionable advice from startup founders and VCs.
 - Produced over 30 articles in the 2018–2019 school year.