Matt Jones

Graduate Student

(218) 851-9715 | Matthew.I.Jones.GR@dartmouth.edu

Education

Dartmouth College — *Hanover, NH*

Master's Degree in Mathematics — *March 2019*

Arizona State University — *Tempe, AZ*

Bachelor of Science in Physics, GPA: 4.0/4.0 — *May 2017*

- Minor in Mathematics
- **University of Glasgow**, Glasgow, UK — *Semester Abroad Spring 2015*

Skills

Areas of study Networks, Evolutionary Dynamics, Game Theory, Social Systems

Programming Python, Matlab, Mathematica

Experience

Dartmouth College — *Hanover, NH*

Math Professor — *Sept. - Nov. 2019, March - June 2021*

- Teach single and multi variable calculus (2019) and linear algebra (2021)
- Write homework and exams
- Write lesson plans/lecture notes
- Lecture and lead discussion groups

Dartmouth College — *Hanover, NH*

Teaching Seminar — *June 2019 - Aug. 2019*

- Learn various pedagogical techniques and schools of thought
- Practice lecturing and addressing student difficulties
- Practice designing a syllabus and writing lesson plans
- Run two week-long math camps for local high school students

Dartmouth College — *Hanover, NH*

Teaching Assistant — *Sept. 2017 - Mar. 2018*

- Math 13 - Fall 2017
- Math 23 - Winter 2018
- Math 76 - Summer 2018
- Math 23 - Winter 2019

New School for the Arts and Academics — *Tempe, AZ*

Teaching Intern — *Jan. 2016 - May 2016*

- Interned in a middle-school math classroom
- Helped students solve problems during work time
- Lectured on math topics

Arizona State University — *Tempe, AZ*

Learning Assistant — *Sept. 2015 - May 2017*

- Helped students work through problems in a flipped-classroom setting
- Held office hours to address students' problems
- Graded daily homeworks
- Gave occasional lectures

Projects

Dartmouth Math Camps *Hanover, NH*

July 2019 - Aug. 2019

- Choose lecture topics, write lesson plans, and design in-class activities
- Give lectures to a group of high school students
- Work with other grad students to run the camp

Undergraduate Honors Thesis *Tempe, AZ*

Jan. 2016 - May 2017

- Wrote my undergraduate honors thesis on undergraduate physics classes
- Extensively studied the mathematical difficulties and misconceptions of introductory physics students
- Topics included algebra, trigonometry, systems of equations, and vectors
- Designed and administered diagnostic tests to hundreds of students
- Conducted one-on-one interviews with dozens of students to probe their understanding of how to solve math problems
- Presented my findings in 43 page paper

Talks

eSMB Annual Meeting 2020

Spatial Games of Fake News *Aug. 2020*

Dartmouth Applied and Computational Math Seminar *Hanover, NH*

Voter Preference and Party Ideological Shifts *Oct. 2020*

Yale Human Nature Lab

Random Behavior in Collective Network Colloring Problems *April 2021*

Poster Presentations

SIAM Annual Meeting 2020

Spatial Games of Fake News *July 2020*

IC^2S^2 2020

Spatial Games of Fake News *July 2020*

Publications

Random Choices can Facilitate the Solving of Collective Network Coloring Problems by Artificial Agents *iScience*

Matthew I. Jones, Scott D. Pauls, Feng Fu *March 2021*

Polarization, Abstention, and the Median Voter Theorem *Preprint*

Matthew I. Jones, Antonio D. Sirianni, Feng Fu

Honors / Awards

Graduated Summa Cum Laude *Tempe, AZ*

May 2017

- Bachelors, Arizona State University