

# Justin Miller

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## Education:

**The University of Notre Dame**  
May 2021  
Ph. D. in Mathematics  
Advisor: Dr. Peter Cholak

**The University of Notre Dame**  
May 2018  
M.S. in Mathematics

**The Pennsylvania State University**  
May 2016  
B.S. in Mathematics  
Schreyer Honors College

## Positions:

**Dartmouth College**  
July 2021  
John Wesley Young Instructorship in Mathematics

## Papers:

**The University of Notre Dame**  
2021  
Intermediate Intrinsic Density and Randomness.  
*Computability*  
To Appear.  
<https://arxiv.org/abs/2005.14307>

**The University of Notre Dame**  
2020  
Intrinsic Smallness.  
*Journal of Symbolic Logic*.  
To Appear.  
<https://arxiv.org/abs/1909.00050>

**The Pennsylvania State University**  
2016  
Extending First Order Logic to Quantify Over Formulas  
Undergraduate Honor's Thesis  
Advisor: Dr. Jason Rute  
<https://honors.libraries.psu.edu/catalog/29235>

## Teaching Experience:

**The University of Notre Dame**  
Spring 2021  
Teaching Assistant  
Math 22550: Calculus III

**The University of Notre Dame**  
Spring 2020  
Instructor  
Math 10560: Calculus II

**The University of Notre Dame**  
Spring 2019

Instructor  
Math 10130: Beginning Logic

**The University of Notre Dame**  
Fall 2018

Head Teaching Assistant  
Math 10550: Calculus I

**The University of Notre Dame**  
Spring 2018

Teaching Assistant  
Math 10360: Calculus B

**The University of Notre Dame**  
Fall 2017

Teaching Assistant  
Math 10550: Calculus I

### **Talks:**

**Fall 2020 NERDS**  
November 2020

Noncomputable Coding, Density, and Stochasticity

**XXV Midwest Computability Seminar**  
September 2020

Noncomputable Coding, Density, and Stochasticity

**2019 CMS Winter Meeting - Computability Theory**  
December 2019

Intrinsic Density and Intrinsically Small Sets

### **Awards:**

**The University of Notre Dame**  
Spring 2020

Outstanding Graduate Student Teacher Award  
Notre Dame Learning and the Kaneb Center

**The Pennsylvania State University**  
Spring 2016

William B. Forest Honors Scholarship