

# KARAN SRIVASTAVA

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July 2022

## EDUCATION

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<b>University of Wisconsin-Madison</b> Mathematics PhD	<i>Madison, WI</i> <i>2020-present</i>
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<b>University of Illinois at Urbana-Champaign</b> BS Mathematics Magna Cum Laude, Highest Distinction in Mathematics	<i>Urbana-Champaign, IL</i> <i>2016-2020</i>
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<b>Math in Moscow</b> Study Abroad Program	<i>Moscow, Russia</i> <i>Spring 2018</i>
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## PUBLICATIONS

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“A Perturbation Bound on the Subspace Estimator from Canonical Projections” (with Daniel Pimentel-Alarcon) ISIT 2022

## CONFERENCES

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<b>International Symposium on Information Theory</b> Presented an accepted publication	<i>Espoo, Finland</i> <i>June 2022</i>
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## TALKS

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<b>A Perturbation Bound on the Subspace Estimator from Canonical Projections</b> International Symposium on Information Theory	<i>Espoo, Finland</i> <i>June 2022</i>
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<b>An almost Impossible puzzle and group theory</b> AMS Student Chapter Seminar	<i>Madison, WI</i> <i>June 2022</i>
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<b>Why people say “I can’t do math”</b> Presented an Ignite Talk at Park City Math Institute’s Summer School. You can watch it <a href="#">here</a>	<i>Park City, UT</i> <i>July 2019</i>
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## AWARDS AND HONORS

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<b>Exceptional Teaching Award</b> Awarded to TA’s demonstrating excellence in teaching	<i>University of Wisconsin</i> <i>2020-2022</i>
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<b>Edmund J. James Scholar</b> Undergraduate Honors Program	<i>University of Illinois</i> <i>2017-2020</i>
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<b>Dean’s List</b> Awarded every semester	<i>University of Illinois</i> <i>2016 - 2020</i>
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## ORGANIZATIONS AND OUTREACH

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### **Directed Reading Program**

Organizer, Mentor

*University of Wisconsin*

*Fall 2021-present*

### **Madison Math Circle**

Organizer

*University of Wisconsin*

*Fall 2021-Summer 2022*

### **Madison Experimental Mathematics Lab**

Graduate Coordinator

*University of Wisconsin*

*Spring 2022-present*

### **Undergraduate Mentor Program**

Co-Founder, Organizer, Mentor

*University of Wisconsin*

*Spring 2022-present*

### **Grad Student Visit Day Panel**

Graduate Coordinator

*University of Wisconsin*

*Fall 2021 - Present*

### **Graduate Peer Mentor Program**

Mentor

*University of Wisconsin*

*Fall 2022*

## TEACHING EXPERIENCE

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### **Math 211: Calculus**

Head Teaching Assistant

*University of Wisconsin*

*Summer 2022*

### **Math 240: Introduction to Discrete Mathematics**

Teaching Assistant

*University of Wisconsin*

*Summer 2022*

### **Math 222: Calculus and Analytical Geometry II**

Head Teaching Assistant\*

*University of Wisconsin*

*Spring 2022*

### **Math 211: Calculus**

Head Teaching Assistant\*

*University of Wisconsin*

*Fall 2021*

### **Math 222: Calculus and Analytical Geometry II**

Teaching Assistant\*

*University of Wisconsin*

*Summer 2021*

### **Math 211: Calculus**

Teaching Assistant\*

*University of Wisconsin*

*Spring 2021*

### **Math 221: Calculus and Analytical Geometry I**

Teaching Assistant\*

*University of Wisconsin*

*Fall 2020*

\*Awarded superior teaching assistant rating by the Department of Mathematics

## RESEARCH EXPERIENCE

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## Illinois Gometry Lab

Undergrad Research Program

Advisor: Dominic Culver, Topic: Weierstrass equations of Elliptic Curves

Advisor: Susan Tolman, Topic: Sphere packings on Symplectic Manifolds

*University of Illinois*

*Spring 2020*

*Fall 2018*

## PROJECTS

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### Erdős Institute

Data Science and ML Bootcamp / Project

*Ohio State University*

Summer 2022

For the final project, worked with the "[What's Cooking?](#)" dataset from Kaggle. Used dimensionality reduction and clustering analyses to determine similarity between cuisines based on their ingredients. We worked on Random Forest, Linear SVC, and other classification models and achieved an accuracy of  $\approx 80\%$ . Project presentation and code base can be found at [this page](#).