



# Irit Huq-Kuruvilla

Personal Website

PhD in Mathematics

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✉ huq.irit@gmail.com

🐙 GitHub Profile

🌐 LinkedIn Profile

## ABOUT ME

Recent PhD in mathematics from UC Berkeley interested in taking a more tech-oriented role. Aside from my knowledge of math and physics, I have taken and helped teach many courses in theoretical computer science and operations research. I also have a background in competitive programming, as well as knowledge of various machine learning protocols. I am interested in data science, software engineering, machine learning, artificial intelligence, quantum computing or anything where my knowledge and skills would be relevant.

## EDUCATION

- **UC Berkeley** 2017-23  
*PhD in Mathematics, Subject Area: Mathematical Physics* GPA: 4.0
- **Columbia University** 2013-2017  
*BA in Mathematics* GPA: 3.7

## WORK EXPERIENCE

- **UC Berkeley Department of Mathematics** 2017-2023  
*Research Assistant + Graduate Student Instructor* Berkeley, CA
  - Conducted research in mathematical physics. Wrote papers and presented at conferences. Assisted for and taught classes in Calculus, Precalculus, and Linear Algebra
- **Columbia University Department of Computer Science** 2015-2017  
*Undergraduate Teaching Assistant* New York, NY
  - Assisted for and taught classes in Number Theory and Cryptography, Analysis of Algorithms, and Computational Complexity

## TECHNICAL SKILLS

**Languages:** Java, Python, SQL, HTML

**ML Tools:** PyTorch, Tensorflow, Pandas, Keras, ResNet

**Other:**  $\LaTeX$ , Mathematica, Canvas, Microsoft Excel

**Relevant Coursework:** Design and Analysis of Algorithms, Computational Complexity, Discrete Optimization, Combinatorial Optimization, Linear Algebra

## PERSONAL PROJECTS

- **Tree Classification** 2023  
*Erdos Institute Data Science Boot Camp Project*
  - Description: I worked with team of other graduate students and postdocs to use the ReforestTree dataset to train a model to classify trees from satellite images, and estimate their total carbon storage potential. Details of the project and its results are available on my GitHub page

## HONORS AND AWARDS

- **Certificate of Completion** Erdos Institute Data Science Bootcamp 2023
- **Graduate Student Research Fellowship** National Science Foundation 2018-2023
- **Science Research Fellow** Columbia University 2013-2017  
(Award given to fund summer research promising students)
- **2nd Place** St. Bonaventure University High School Programming Competition 2012

## REFERENCES

Available upon request.