

NILAVA METYA

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🏠 nilavam.github.io

SUMMARY

Third year Mathematics PhD student with extensive *collaborative* research experience. Proficient in comprehending *technical* articles with a heavy interest in *communicating* ideas between the technical and non-technical audience. Seeking to use my strong *quantitative* skills and interest in *collaborative problem-solving* and communication to develop algorithms for complex *data-driven* problems.

EDUCATION

Rutgers, the State University of New Jersey - New Brunswick

Doctor of Philosophy in Mathematics | CGPA: 4.0/4.0

Master of Science in Mathematics | CGPA: 4.0/4.0 | **2022 - '24**

passed written qualifying exams in first attempt just before program started

Sep '22 – (expected) '27

Piscataway, New Jersey, USA

Chennai Mathematical Institute

Bachelor of Science (Honours) in Mathematics and Computer Science | CGPA: 9.72/10

Third (out of 55 students), completed degree requirements in 2.5 years

Aug '19 – May '22

Chennai, Tamil Nadu, India

PUBLICATIONS/PREPRINTS

1. DePaul, Hoşten, **Metia**, Nometa. Degrees of the Wasserstein distance to small toric models. *Journal of Algebraic Statistics*

PROJECTS/EXPERIENCE

Distributionally Robust Games | *with B Gangwani and A Sinha*

current

Protein symmetry prediction (with certificate) | *Data Science Bootcamp at the Erdős Institute*

Feb - Apr '23

Inference on growth process of a network | *Data Mining course*

Sep - Dec '23

Principal Components along Quiver representations | *Computational Topology course*

Sep - Dec '23

SELECTION/ATTENDANCE IN CONFERENCES/WORKSHOPS

Princeton Machine Learning Theory Summer School | *Summer School* | Princeton

Aug '24

Efficient Algorithms for High Dimensional Metrics | *Workshop* | DIMACS, Rutgers, NB

May '24

Bayesian Statistics and Statistical Learning | *Workshop* | IMSI, Chicago

Dec '23

Algebraic Methods in Biochemical Reaction Networks | *Workshop* | MPI, Leipzig

Jun '23

HONOURS AND AWARDS

Nominated by Rutgers Math department for SLMATH summer school

Jun '23

Summer school at Leipzig - awarded full travel funding. Only two students from Rutgers Math were fully funded by SLMATH.

Academic Excellence Award at Rutgers

Sep '22

Received a certificate and \$100 based on performance in Written Qualifying Exams.

Shriram Scholarship at CMI

'19 – '22

Received institutional fee waiver and monthly stipend (based on entrance exam).

Ranked 4th nationally at the Bachelor of Statistics (B.Stat.) entrance examination of ISI

'19

Selected among (approx) top 100-130 school students in India in Zonal Informatics Olympiad

'17, '18, '19

Selected for Indian National Mathematical Olympiad Training Camp among 30 students in West Bengal.

Jan '18

Tara and Jasubhai Mehta Fellowship for PROMYS

'18, '19, '20, '21

Others

- Qualified for **International Collegiate Programming Contest (ICPC)** Kharagpur regionals and Amritapuri regionals in 2019 and secured rank 35 among (approx) 90 university teams at Kharagpur.
- Selected among top 30 students in India to participate in **Scholastic Test of Excellence in Mathematical Sciences (STEMS)** camp at CMI in 2018 (grades 9 – 12 and across Math, Physics, Computer Science).
- Secured the **third position** in **Mathematics Talent Reward Programme (MTRP)** 2016, organized by ISI Kolkata.

SKILLS

Research

Optimization and AI/ML in game theory, especially distributionally robust optimization

Languages

Bengali (mother tongue), English (fluent), Hindi (fluent), German (beginner)

Programming

Python, C++, R, Haskell, MATLAB, JAVA, HTML

Documentation

LaTeX, Microsoft Word

Relevant Courses

Convex Optimization, (Theoretical) Machine Learning, Data Mining, Probability, Statistics, Algorithms

SELECTED TEACHING/GRADING EXPERIENCE

Head Counselor at PROMYS India | IISc Bangalore

May – Jun '23

Faculty at Ramanujan School of Mathematics | Kolkata

May '19 – July '22

Taught high-school students competitive math for math olympiad, CMI, ISI entrance exams