



NILAVA METYA

Piscataway, NJ - 08854, USA

 nilava30@gmail.com  [nilavam.github.io](https://github.com/nilavam)

EDUCATION

Rutgers, the State University of New Jersey - New Brunswick <i>Doctor of Philosophy in Mathematics</i> CGPA: 4.0/4.0 <i>passed written qualifying exams in first attempt just before program started</i>	Sep '22 – May '27 Piscataway, New Jersey, USA
Rutgers, the State University of New Jersey - New Brunswick <i>Master of Science in Mathematics</i> CGPA: 4.0/4.0	Sep '22 – May '24 Piscataway, New Jersey, USA
Chennai Mathematical Institute <i>Bachelor of Science (Honours) in Mathematics and Computer Science</i> CGPA: 9.72/10 <i>Third (out of 55 students), completed degree requirements in 2.5 years</i>	Aug '19 – May '22 Chennai, Tamil Nadu, India
Don Bosco School, Liluah <i>Indian School Certificate (ISC) 2019</i> Percentage: 97.25% <i>Position: First in science stream (~ 55 students), second overall (~ 180 students)</i>	Apr '06 – Mar '19 Howrah, West Bengal, India
<i>Indian Certificate of Secondary Education (ICSE) 2017</i> Percentage: 96.6% <i>Position: First in school (~ 180 students)</i>	

PUBLICATIONS/PREPRINTS

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

PROJECTS/EXPERIENCE

Higher order MDS codes <i>with A Sengupta</i>	current
Distributionally Robust Games <i>with B Gangwani and A Sinha</i>	current
Protein symmetry prediction (with certificate) <i>Data Science Bootcamp at the Erdős Institute</i>	Feb - Apr '24
Inference on growth process of a network <i>Data Mining course</i>	Sep - Dec '23
Principal Components along Quiver representations <i>Computational Topology course</i>	Sep - Dec '23

SELECTION/ATTENDANCE IN CONFERENCES/WORKSHOPS

Princeton Machine Learning Theory Summer School <i>Summer School</i> Princeton	Aug '24
Efficient Algorithms for High Dimensional Metrics <i>Workshop</i> DIMACS, Rutgers, NB	May '24
Bayesian Statistics and Statistical Learning <i>Workshop</i> IMSI, Chicago	Dec '23
Algebraic Methods in Biochemical Reaction Networks <i>Workshop</i> MPI, Leipzig	Jun '23

HONOURS AND AWARDS

Nominated by Rutgers Math department for SLMath summer school <i>Summer school at Leipzig - awarded full travel funding. Only two students from Rutgers Math were fully funded by SLMath.</i>	Jun '23
Academic Excellence Award at Rutgers <i>Received a certificate and \$100 based on performance in Written Qualifying Exams.</i>	Sep '22
Shriram Scholarship at CMI <i>Received institutional fee waiver and monthly stipend (based on entrance exam).</i>	'19 – '22
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 <ul style="list-style-type: none">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, mathematics of optimization
Languages	Bengali (mother tongue), English (fluent), Hindi (fluent), German (beginner)
Tech	Python, C++, R, Haskell, MATLAB, JAVA, HTML, \LaTeX , Microsoft Word, Unix
Relevant Courses	Optimization, Theoretical Machine Learning, Data Mining, Probability, Algorithms, Functional Programming

SELECTED TEACHING/GRADING EXPERIENCE

Teaching Assistant / Grader Rutgers	Sep '22 –
TA/grader for undergraduate courses like calculus, topology, number theory, statistics, abstract algebra, real analysis	
Head Counselor at PROMYS India IISc Bangalore	May – Jun '23
Teaching Assistant CMI	May '20 – May '22
TA/grader for (under)graduate courses like linear algebra, discrete math, Haskell, probability, algorithms	