karthik2@math.washington.edu

https://iyer-karthik.github.io/ https://github.com/iyer-karthik

Education

University of Washington

Ph.D. Mathematics

Tata Institute of Fundamental Research

M.Sc. Mathematics

University of Mumbai

B.Sc. Mathematics

Seattle, WA
September '12 - June '18 (expected)
Bangalore, India
August '10 - May '12
Mumbai, India
July '07 - May '10

Work Experience

Hong Kong University of Science and Technology

Hong Kong

Junior Visiting Scholar at Jockey Club, IAS

September - December '16

Research on uniqueness for inverse problems in elliptic partial differential equations. Specific
emphasis on very low regularity and degeneracy of coefficients.

University of Washington

Seattle, WA

Research assistant, Instructor, Teaching assistant

September '12 - present

- Research assistant under Prof. Gunther Uhlmann working on inverse problems in partial differential equations.
- Instructor for basic and advanced multi-variable calculus. Taught the course content, gave and graded assignments, quizzes and examinations.
- Teaching assistant for undergraduate math courses. Led quiz sections for calculus and pre-calculus courses and graded senior level math classes.

Submitted Papers

- Determining rough first order perturbations of the polyharmonic operator. Joint work with Yernat Assylbekov.
- Cloaking for a quasi-linear elliptic partial differential equation.

 Joint work with Tuhin Ghosh. (To appear in Inverse Problems and Imaging.)

Awards and Honors

- Full Scholarship (August '10 May '12) by Tata Institute of Fundamental Research, Bangalore.
- Top 1.5% among the graduating class of '10 of over 1000 students at University of Mumbai.
- Top 16 finisher at the inaugural Madhava Mathematics Competition, a mathematics competition for undergraduate students organized under the aegis of National Board of Higher Mathematics, India.

Skills

- Technical: Python, R, C++, MATLAB, IATEX, SQL, git.
- Selected Coursework: Stochastic Calculus, Monte Carlo simulation, Linear Algebra, Probability and Statistics, Numerical Partial Differential Equations.