Vaibhava Srivastava

Curriculum Vitae

DOB: *06 March 1997*
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Research Interest

Applied Mathematics & Analysis, & Mathematical Biology

Education

Spring '21-25 [anticipated] **Doctor of Philosophy, PhD (Applied Mathematics)**, *Iowa State University, USA*

2018-2020 **Master of Science (Mathematics)**, *Indian Institute of Technology Gandhinagar, India, CPI: 8.25*

2014-2017 **Bachelor of Sciences (Honors) in Mathematics**, *University of Delhi, Acharya Narendra Dev College, India, Percentage: 92.03%*

2014 **Senior Secondary School Examination**, *Kendriya Vidyalaya(KV) Dilkusha Cantt, Lucknow, India, Marks aggregate: 93.2%, Physics, Chemistry, Mathematics(PCM): 93.66%*

2012 **Secondary School Examination**, *Kendriya Vidyalaya(KV) JLA Cantt, Bareilly, India, CGPA: 10/10*

Current Employment/Positions

Spring '21- **Graduate Teaching Assistant**, *Department of Mathematics, Iowa State University*

2022-2023 **Current Vice-President** of the SIAM Student Chapter at Iowa State University.

2021-2022 **Treasurer** of the SIAM Student Chapter at Iowa State University.

Publications

2021 **Srivastava V, Cheviakov A.**, *Brownian dynamics simulations for the narrow escape problem in the unit sphere. Phys Rev E. 2021 Dec;104(6-1):064113. doi: https://doi.org/10.1103/PhysRevE.104.064113.*

2021 **V. Srivastava and A. Cheviakov.**, *Narrow Escape Brownian Dynamics Modeling in the Three-Dimensional Unit Sphere, arXiv preprint https://arxiv.org/abs/2107.01233v2*

2019-2022 **Master's Dissertation.**, *The Qualitative Study of the Eigenvalue and Eigenfunctions of the Strong Localized Perturbed Eigenvalue Problem (A dissertation submitted in partial fulfillment of the requirements for the degree of Master of Science in Mathematics)*

Poster Presentations/Conferences

August 2022 Summer Program in Partial Differential Equations 2022, University of Texas at Austin, USA.

July 2022 The International Congress of Mathematicians 2022, Virtual.

2021-2022 Mathematical Biology seminar at the Department of Mathematics, Iowa State University, USA.

June 2022 Nonlocal School on Fractional Equations NSFE 2022, Iowa State University, USA.

April 2022 SIAM Seminar, Iowa State University.

Nov 2019 Short project and presentation on Image processing using diffusion equation.

July 2019 Secured **second position** in poster presentation on Brownian Dynamics Modelling for the Narrow Escape Problem at SURI-2019 held at USask, Saskatchewan, Canada.

π Day 2019 Presented poster on The topological properties of Stereographic Projection and its applications in the real world at IIT, Gandhinagar, India.

May 2019 Presented and designed the 3-D Geodesics, the Icosahedron at IIT, Gandhinagar.

October 2018 Presentation on Folktale and its historical significance in the Awadh region at IIT-GN.

Teaching Experience

Recitation Instructor and Conducted Weekly Office Hour Sessions

- **Math 145** Applied Trigonometry (In-person) (Fall '22)
- **Math 143** :Preparation for Calculus (In-person) (Fall '22)
- **Math 165** Calculus I (In-person) (Spring '22)
- **Math 150** Discrete Math for Business and Social Sciences (In-person) (Fall '21)
- **Math 165** Calculus I (Online) (Spring '21)

Grader

- **Math 150** Discrete Math for Business and Social Sciences (Summer '21)

Under-Graduate Teaching Experience

- Member of Problem Solving Group at IIT, Gandhinagar, India.
- Advanced Mathematics Tutor at Chegg (2018-2020)

Research Experience

2019-20 **Master's Dissertation**, The Qualitative Study of the Eigenvalue and Eigenfunctions of the Strong Localized Perturbed Eigenvalue Problem.

Summer 2019 **SURI-2019**, Summer Undergraduate Research Initiative, 2019 at University of Saskatchewan, Canada

Summer 2018 **SPIM 2018**, Summer Program in Mathematics (SPIM) in Mathematics 2018 at (HRI), Allahabad

Summer 2017 **MTTS 2017**, *Mathematics Training and Talent Search Programme*

June 2016 **IAS-SRFP**, *Indian Academy of Sciences Summer Research Fellowship Program*

2015-2016 **ANDC- 304**, *Delhi University Innovation Project ANDC- 304*

July 2016 **FACETS 2016**, *Attended the 2016 edition of the IMSc outreach program for advanced undergraduate*

Computer Skills

Software **Numerical and Scientific Computing Libraries :** MATLAB, Mathematica, NumPy.

Other Mathematical Softwares : SQL, Tora, Spyder(IDE).

Languages LaTeX, Python, C++.

OS Working with Linux for the last 4 years, Distributions: Ubuntu, Peppermint, Fedora, openSUSE.

Worked with Windows for the 4 years, Distributions: Windows 7,8,10.

Familiar OS Mac OS,Windows: XP, Vista,.

Organizational Skills

Summer '22- Current vice-president of the SIAM Student Chapter at Iowa State University.

2021-22 Treasurer of the SIAM Student Chapter at Iowa State University.

2019 Organizer of Mathegon : Mathematical fest of Indian Institute of Technology Gandhinagar.

2014-2017 Organizer of MATRIX : Mathematical fest of Acharya Narendra Dev College University Of Delhi.

Community Service

2009-2014 The Bharat Scouts and Guides

- Rajyapuraskar Awardee
- Worked for the welfare of the rural areas of India.
- Active volunteer for various literary programs conducted for the rural areas.

Languages

Hindi: Native English: Fluent Sanskrit: Basic