

Vaibhava Srivastava

Curriculum Vitae

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DOB: 06 March 1997

Education

- 2018-2020 **Master of Science(Mathematics)**, *Indian Institute of Technology Gandhinagar, India*,
[anticipated] *CPI: 8.28.*
- 2014-2017 **Bachelor of Sciences(Honors) in Mathematics**, *University of Delhi, Acharya Narendra Dev College, India*, *Percentage: 92.03%.*
- 2014 **Passed Senior Secondary School Examination**, *Kendriya Vidyalaya(KV) Dilkusha Cantt, Lucknow, India*, *Marks aggregate: 93.2%, Physics, Chemistry, Mathematics(PCM): 93.66%.*
- 2012 **Passed Secondary School Examination**, *Kendriya Vidyalaya(KV) JLA Cantt, Bareilly, India*, *CGPA: 10/10.*

Research Experience

- May-July 2019 **SURI-2019**, *Summer Undergraduate Research Initiative, 2019 at University of Saskatchewan.*
Secured **second position** in poster presentation at SURI- 2019 held at USASK, Saskatchewan(Canada).
I worked on the Brownian Dynamics Modelling for the Narrow Escape Problem in the case of unit sphere under the guidance of Dr. Alexey Shevyakov(shevyakov@math.usask.ca). An efficient MATLAB-based code was developed which was used to model the Narrow Escape Problem.
- June-July 2018 **SPIM 2018**, *Summer Programme in Mathematics (SPIM) in Mathematics 2018 at Harish-Chandra Research Institute(HRI), Allahabad.*
The programme involves intensive lectures on Algebra (Group Theory, Field Theory), Analysis (Measure Theory, Basic Complex Analysis) and Topology (Set Topology up to homotopy theory) over a period of three weeks in the summer.
- May-June 2017 **MTTS 2017**, *Selected in Mathematics Training and Talent Search Programme Level 1 at RIE Mysore.*
- June 2015-2016 **Delhi University Innovation Project ANDC – 304**, *Innovation Project under the guidance of Dr. Chaman Singh, Dr. Sadanand Prasad and Dr. Arijit Chawdhuri at Acharya Narendra Dev College, University of Delhi.*
We had developed a portable Electronic Nose prototype with autonomous and stand-alone operation for quantified Ambient Air Pollution (AAP) measurement using wireless data transfer protocol on Android enabled phone.
- June-July 2016 **IAS-SRFP 2016**, *Indian Academy of Sciences Summer Research Fellowship Programme IAS-SRFP 2016 under guidance of Dr. Sanoli Gun at IMSc Chennai.*
A summer research project about analyzing structure of groups and rings. Report was selected and approved by Indian Academy of Sciences.
- July 2016 **FACETS 2016**, *Attended Facets 2016, the 2016 edition of the IMSc outreach program for advanced undergraduate.*

Poster Presentation/Workshops/Lectures

- October 2019 Short project and presentation on "Image processing using diffusion equation"
- July 2019 Secured **second position** in poster presentation at SURI- 2019 held at USASK, Saskatchewan(Canada).
- May 2019 Attended short course: Polyhedra Geodesics and Product Design conducted by Dr. Manish Jain. We studied the properties of Icosahedron and submitted the 3-D model

- March 2019 Presented poster on π Day : Stereographic projection and it's topological and applications in real world.
- Dec 2017 Attended a talk by Field Medalist Prof. Efim Zelmanov (Department of Mathematics, University of California, San Diego) about "Mathematics:Science or Art".
- July 2016 Attended a talk by Prof.Amritanshu Prasad (IMSc) about "Group theory: the language of symmetry".
- July 2016 Attended a talk by Prof. Sunita Vutuk (City University of New York) about "Lie-groups:A quick tour of symmetries and Invariance in Math,Physics and engineering".
- July 2016 Attended a talk by Prof. Arul Shankar about "Average rank of Elliptic curve".
- 2016 Attended a Workshop of "Digital India: Challenges and Benefits" at Department of Computer Sciences, Acharya Narendra Dev College College, University of Delhi
- Feb 2015 Attended a lecture on "Artificial Neural Networks and Application to physics" by Prof. Ramesh K Agrawal (School of Computer and Systems Jawaharlal Nehru University) at Acharya Narendra Dev College, University of Delhi.
- 2015 Attended a talk by Prof. R.K Sharama (IIT Delhi) on "Role of Cryptography in real life" at Department of Mathematics, Acharya Narendra Dev College College, University of Delhi.
- 2015 Attended a talk by Dr. David Kochman from (Jozef Stefan Institute, Ljubljana, Slovenia), International collaborators in INDO-SLOVENIA bilateral project on Ambient Air Pollution about his Country, Institute and about the Research they are carrying out.
- 2014 Attended a talk by Prof. Shobha Bhagai,(Program Coordinator, B.Tech. ITMI) about Significance of "Mathematical Modelling and Fluid Dynamics" at Department of Mathematics, Acharya Narendra Dev College College, University of Delhi.

Courses Taken

- Mathematics **Pure Mathematics** : Topics in Real Analysis, Topology, Algebraic Topology, Measure Theory, Introduction to Linear Algebra, Basic Algebra, Introduction to Functional Analysis, Complex Analysis.
- Applied** : Calculus, Ordinary Differential Equations and Mathematical Modelling, Advanced Probability Theory, Numerical Methods and Programming, Discrete Mathematics, Linear Programming and Theory of Games, Partial Differential Equations.

Computer Skills

- Operating Systems Working with Linux for the last 2 years, Distributions: Ubuntu,
Worked with Windows for the 6 years, Distributions: Windows 7,8,10
- Other Familiar OS Windows: XP, Vista, Mac OS
- Software MATLAB, Mathematica, SQL, Tora, Spyder(IDE)
- Languages \LaTeX , Python, C++
- Numerical and Scientific Computing Libraries MATLAB, Mathematica, NumPy

Achievements and Scholarships

- 2017 Section topper in Bachelor of Science(Honors) in Mathematics with percentage 92.03.
- 2012 Scout and Guide Rajyapuraskar award holder.

2012 Science project got selected in K.V.S Regional Science Exhibition at Indian Institute of Technology Kanpur.

2010 School topper in Class 10, CPI 10(on the scale of 10).

Inter-Intra Various prize winner in Co-Curricular Activities held in Regional as well as Inter-School level.
School level

Languages

Hindi Native
English Fluent
Sanskrit Basic

Extra Co-curricular Activities and Other Interests

- o Writing Poem and Articles.
- o Blogging
- o Watching football
- o Prefer to read books in my free time.

Work Experience

- [1] Member of Mathematical Society: MATRIX of ANDC.
- [2] Member of 1 year DU Innovation project ANDC-304.
- [3] Advanced Mathematics tutor at Chegg, Inc.