A A R A T R I C K   B A S U
C U R R I C U L U M   V I T A E [1]

Personal Data

Date of Birth	5th August, 2003
E-Mail	ukg7ef@virginia.edu, aaratrick.r2ab@gmail.com

Education

Period	**Fall 2024 — Present**	
Degree	**PhD in Mathematics**	
University	**University of Virginia**	Charlottesville, VA, USA

Period	**2021 — 2024**	
Degree	**Bachelor of Mathematics (Honours)**	
Percentage	**92.63%**	
University	**Indian Statistical Institute**	Bangalore, India

Period	**2018 — 2021**	
Degree	**Secondary & Higher Secondary school**	
School	**Aditya Academy Secondary, Kadambagachi**	West Bengal, India

Projects

Period	**January - April 2024**	
Organisers	**Prof. Charanya Ravi, Prof. Jishnu Biswas, Prof. Manish Kumar**	
Program	**Reading Seminar**	ISI Bangalore
Topic	**Intersection homology**	

Period	**May - July 2023**	
Guide	**Prof. Subhojoy Gupta**	IISc Bangalore
Program	**Summer Research Fellowship Program**	
Topic	**Geometry and Topology of Surfaces**	

Period	**June - July 2023**	
Organiser	**Prof. Apoorva Khare, Prof. R Venkatesh**	IISc Bangalore
Program	**Advanced Instruction School**	
Topic	**Lie Groups and Lie Algebras**	

Period	**December 2022**	
Guide	**Prof. Maneesh Thakur**	ISI Bangalore
Topic	**Geometric Algebra**	

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[1] Last updated: 11th July, 2024

Scholarships and Awards

2022   Summer Research Fellowship (Indian Academy of Sciences)
2019   KVPY SA Fellow
2019   JBNSTS Junior Scholar

Skills

Languages	English (near native), Hindi (fluent), Bengali (native)
Programming Languages	Python, LaTeX, R, Markdown, JavaScript, Bash

Talks given

- A proof of the Dehn-Nielsen-Baer theorem using geometric group theory
  Presentation at end of project with Prof. Subhojoy Gupta, IISc Bangalore, July 2023

- Hyperbolic Geometry, Hyperbolic Surfaces and Fuchsian Groups
  Math Club student talk, ISI Bangalore, August 2023

- L^2-cohomology and intersection cohomology
  Intersection Homology reading seminar, ISI Bangalore, February 2024

- What is $?(x)$?
  Math Club "What is …?" seminar, ISI Bangalore, March 2024

- The Riemann-Hurwitz formula, orbifolds and Hurwitz's automorphism theorem
  Part of Complex Analysis course, ISI Bangalore, March 2024

Conferences attended

- Holomorphic and Topological Methods in Symplectic Geometry
  ISI Kolkata, $3^{rd} - 8^{th}$ June, 2024

Volunteer Work

- Involved in organising talks and maintaining the website of student run *Math Club* at ISI Bangalore.

- Contributed to the website of math contest *LIMIT* run by students of ISI Bangalore.

- LaTeXed notes of course on Real Analysis of Several Variables, available here.

- Planned and organised "What is …?" seminar with other Math Club members at ISI Bangalore.