Deependra Singh

deeps@sas.upenn.edu | deependra230.github.io

EDUCATION University of Pennsylvania

Philadelphia, PA

Ph.D., Mathematics

Aug 2019 – May 2024 (Expected)

Title: Admissibility over Global Fields

Advisor: Prof. David Harbater

University of Pennsylvania

Philadelphia, PA

M.S.E., Computer & Information Science (GPA 4.0/4.0)

Aug 2017 – May 2019

Indian Institute of Technology Delhi

New Delhi, India

B.Tech., Computer Science & Engineering

Jul 2010 - May 2014

PUBLICATIONS

"Admissible Groups over Global Fields". [pdf file of the preprint]

"Enhanced integrated gradients: improving interpretability of deep learning models using splicing codes as a case study", with A. Jha, J. Aicher, and Y. Barash. *Genome Biology*, Vol. 21 (2020), pp. 1–22.

"Automating Relevance Banding in e-Commerce Search using Click Model", with V. Deolalikar. *IEEE International Conference on Big Data*, 2018, pp. 3793-3797.

"Islands of Interest: Mining Concentrations of User Search Intent over e-Commerce Product Categories", with N. Pradhan and V. Deolalikar. *IEEE International Conference on Big Data*, 2018, pp. 3717-3722.

AWARDS AND FELLOWSHIPS

Benjamin Franklin Fellowship

University of Pennsylvania

2019 - 2024

Certificate in College and University Teaching

Penn Center for Teaching and Learning

Fall 2023

Good Teaching Award

University of Pennsylvania Mathematics Department

Spring 2021

Fellowship in Computer Science

University of Pennsylvania

2017-2019

MHRD scholarship

Government of India

2010-2014

Teaching

University of Pennsylvania

Philadelphia, PA

Spring 2023 – Present

Instructor of Record, Math-1410 Calculus II

Summer 2023

Princeton Prison Teaching Initiative

Volunteer math instructor for South Woods State Prison in New Jersey.

Tutor, MATH 020 Algebra

Spring 2024

Co-Instructor, Math in the Courtroom

Spring 2023

Penn Pre-First Year Program

Philadelphia, PA

Program for first generation, low-income undergraduate students.

	Chiversity of I chirayivania	i illiadcipilia, i ri
	Teaching Assistant, Math 3610 Advanced Calculus II	Spring 2024
	Teaching Assistant, Math 360 Advanced Calculus I	Fall 2021
	Teaching Assistant, Math 509 Honors Analysis II	Spring 2021
	Teaching Assistant, Math 240 Calculus III	Fall 2020
	Penn Directed Reading Program	Fall 2021 – Present
	Mentor for the following undergraduate reading projects:	
	Number Theory, Molly Bradley	Spring 2024
	Quadratic Reciprocity, Angela Cai	Fall 2023
	Algebraic Curves, Max Wang	Spring 2023
	Probablistic Methods, Max Wang	Fall 2022
	Covering Spaces, Kevin You	Fall 2021
SERVICE AND	Penn Graduate Algebraic Geometry Seminar	Fall 2022 - Present
FACILITATION	Co-organizer of the student algebraic geometry seminar with A. Kwon and E. Lennen.	
	Patching in Arithmetic Geometry	Spring 2022
	Co-organizer of the graduate student seminar on patching methods in arithmetic geometry.	
	Math Circles Summer 2023 - Present	
	Co-organizer of the Math Circles at the West Philadelphia High School with M. Ong.	
	Co-organizer of the Math Chees at the West Finadelphia riigh School	of with M. Ong.
TALKS	Penn Algebra Seminar	
	Admissibility over number fields	Spring 2024
		1 0
	Penn Graduate Algebraic Geometry Seminar	
	Rational points and the Brauer-Manin set	Spring 2024
	An introduction to Étale cohomology	Spring 2023
	$Admissibility \ over \ \mathbb{Q}$	Fall 2022
	Patching in Arithmetic Geometry	
	Patching division algebras over semi-global fields	Spring 2022
	Expository Talks	
	Grothendieck topologies and cohomology	Spring 2024
	Milnor K-theory	Spring 2022
	Numerical invariants and stability on algebraic stacks	Fall 2021
	Introduction to spectral sequences	Spring 2021
	Introduction to spectral sequences	5pring 2021
SELECTED	VaNTAGe Seminar	Fall 2023 - Present
Conferences	Arizona Winter School 2024: Abelian Varieties	Spring 2024
& SEMINARS		Fall 2023
& SEMINARS	Algebraic Geometry Northeastern Section (AGNeS)	
	Arizona Winter School 2022: Automorphic Forms Beyond GL2	Spring 2022
Work	Groupon	Palo Alto, CA
EXPERIENCE	Data Scientist, Search & Data Mining team	Oct 2015 – June 2017
LATERIENCE	Zana Sololioto, Source & Dana Historing count	500 2010 Sunc 2011
	Groupon	Chennai, India
	Data Scientist, Data Science team	Jun 2014 - Sep 2015
	,	

 $Summer\ 2023$

Philadelphia, PA

Teaching Assistant, Math-A Pre-Calculus

University of Pennsylvania