Deependra Singh

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EDUCATION University of Pennsylvania Philadelphia, PA

Ph.D., Mathematics

Aug 2019 – May 2024 (Expected)

Title: Admissibility over Global Fields

Advisor: Prof. David Harbater

Philadelphia, PA

University of Pennsylvania

Aug 2017 – May 2019

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

Indian Institute of Technology Delhi

New Delhi, India

B.Tech., Computer Science & Engineering

Jul 2010 - May 2014

PUBLICATIONS

Admissibility over Global Fields, In preparation.

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.

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 Summer 2023

Instructor of Record, Math-1410 Calculus II

Spring 2023 – Present

Princeton Prison Teaching Initiative

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

Co-Instructor, Math in the Courtroom

Spring 2023

University of Pennsylvania Philadelphia, PA Teaching Assistant, Math 3610 Advanced Calculus II Spring 2024 Fall 2021 Teaching Assistant, Math 360 Advanced Calculus I Teaching Assistant, Math 509 Honors Analysis II Spring 2021 Fall 2020 Teaching Assistant, Math 240 Calculus III Fall 2021 - Present Penn Directed Reading Program Mentor for the following undergraduate reading projects: Fall 2023 Quadratic Reciprocity, Angela Cai Spring 2023 Algebraic Curves, Max Wang Fall 2022 Probablistic Methods, Max Wang Covering Spaces, Kevin You Fall 2021 SERVICE AND Fall 2022 - Present Penn Graduate Algebraic Geometry Seminar FACILITATION Co-organizer of the student algebraic geometry seminar with Andrew Kwon and Emmett 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 Marielle Ong. Algebra Seminar Talks Admissibility over number fields Spring 2024 Penn Graduate Algebraic Geometry Seminar 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 Palo Alto, CA Work Oct 2015 - June 2017 EXPERIENCE Data Scientist, Search & Data Mining team Groupon Chennai, India Data Scientist, Data Science team Jun 2014 - Sep 2015

Philadelphia, PA

Summer 2023

Penn Pre-First Year Program

Teaching Assistant, Math-A Pre-Calculus

Program for first generation, low-income undergraduate students.