Kashvi Srivastava
kashvi@umich.edu

EDUCATION

University of Michigan — Ann Arbor, USA
Ph.D. in Applied and Interdisciplinary Mathematics and Scientific Computing — 2020 - Present
Advisors: Professor Santiago Schnell & Professor Victoria Booth
Grade Point Average: 3.972/4.00[1]
M.S. in Applied and Interdisciplinary Mathematics — 2020-2022

Delhi Technological University (DTU) — New Delhi, India
Bachelor of Technology **(B.Tech)** in Mathematics and Computing Engineering — 2016 - 2020
Cumulative Grade Point Average: 9.46/10.00[2]

PUBLICATIONS & PREPRINTS

- J. Eilertsen, K. Srivastava and S. Schnell. Stochastic enzyme kinetics and the quasi-steady-state reductions: Application of the slow scale linear noise approximation à la Fenichel. J. Math. Biol. 85, 3 (2022). (Journal).
- W. Hare and K. Srivastava. Applying Complex-step Derivative Approximations in Model-based Derivative-Free Optimization. Accepted to Pacific Journal of Optimization, 2022 (ResearchGate).
- K. Srivastava, M. Ahlawat, J. Singh, and V. Kumar. Learning Partial Differential Equations from Noisy Data using Neural Networks. J. Phys.: Conf. Ser. 1655 012075, 2020 (Journal).

TALKS

- April 2022, MCAIM Graduate Seminar, University of Michigan (Abstract)
- October 2021, AIM Student Seminar, University of Michigan
- July 2021, SIAM Conference on Optimization 2021 (Virtual) (Abstract)
- July 2021, 2021 SIAM Student Mini-Symposium in Applied Mathematics (Virtual), University of Michigan (Abstract)
- September 2020, Universitas Riau International Conference on Science and Environment 2020 (Virtual)

OTHER PROJECTS

- Agent based modeling of COVID-19 to study impact of public health interventions (Report)
- Prediction of Breast Cancer Survival with Machine Learning Algorithms (Report)
- Literature Review on Interpretable Machine Learning and Explainable Artificial Intelligence (PDF)
- Literature Review on Generalized Inverses (PDF)

TEACHING & MENTORING

Department of Mathematics, University of Michigan — Ann Arbor, USA
Graduate Student Instructor
- Math 115 (Calculus I)[3], Fall 2022, Winter 2021 and Fall 2020
- Math 105 (Data, Functions and Graphs)[4], Fall 2021

Lab of Geometry at Michigan LoG(M)[5], University of Michigan — Ann Arbor, USA
Graduate Mentor
- A Machine Learning Approach to Classify Microswimmers, Fall 2021
- Flowing through confined geometries, Winter 2021

[1] Unofficial Transcript
[2] Undergraduate Consolidated Marksheet
[3] Math 115 Official Website
[4] Math 105 Official Website
[5] LoG(M) Website

AWARDS & HONOURS

- **MICDE Fellowship**, Michigan Institute for Computational Discovery and Engineering, University of Michigan, 2022-2023
- **Rackham International Student Fellowship**, University of Michigan, 2021-2022
- **MCAIM Award**, The Michigan Center for Applied and Interdisciplinary Mathematics, University of Michigan, 2021-2022
- **Mathematics Department Graduate Fellowship**, University of Michigan, Summer 2021
- **Gold Medal**, Department of Mathematics, DTU, 2020 for securing the highest grade point aggregate
- **Mitacs Globalink Research Scholarship**, 2019 for a research internship at the University of British Columbia, Canada

RELEVANT POSITIONS

- **Organizer**, 2022 SIAM Student Mini-Symposium in Applied Mathematics, University of Michigan, 2022
- **Organizer**, Student MCAIM Seminar, University of Michigan, 2021-2022
- **Organizer**, Student AIM Seminar, University of Michigan, Winter 2021 - Present
- **Organizer**, 2021 SIAM Student Mini-Symposium in Applied Mathematics, University of Michigan, 2021
- **SIAM Student Chapter Representative**, The Second Joint SIAM/CAIMS Annual Meeting (AN20), 2020
- **President**, Society for Industrial and Applied Mathematics (SIAM), Chapter DTU, 2018-2019

WORKSHOPS

- Michigan Research Experience for Graduates (MREG) — June 2022
- MSRI Summer Graduate School, Mathematics of Big Data: Sketching and (Multi-) Linear Algebra — June 2021
- The Erdős Institute Data Science Boot Camp — May 2021
- Workshop on Mathematical and Computational Materials Science, Institute for Mathematical and Statistical Innovation — February 2021

TECHNICAL SKILLS

Languages: Python, MATLAB, C++, C, Netlogo, OpenGL, SQL
Miscellaneous: LaTeX, SPSS, Git