Evelyn Kaul

Email: evelyn.kaul@protonmail.com

GitHub: https://github.com/ekaul-opt

LinkedIn: https://linkedin.com/in/evelynkaul

Education

- PhD in Applied Mathematics, Massachusetts Institute of Technology - Thesis: Persistent Homology in High-Dimensional Dynamical Systems

- BS in Mathematics, University of Cambridge

Experience

- Senior Research Scientist, Google Brain (2016-2023)

- Developed optimization algorithms for deep neural architectures using topological priors

- Led a cross-functional team integrating algebraic geometry into sparse tensor methods

- Published in Journal of Machine Learning Research, SIAM Journal on Applied Mathematics

- Visiting Scholar, École Normale Supérieure (2019)

- Collaborated on category-theoretic frameworks for explainable AI

Projects

- GitHub: https://github.com/ekaul-opt

- TopoTorch: Library integrating persistent homology with PyTorch layers

- Stochastic Variational Flows: Advanced implementation of manifold-based optimizers

- Over 2k stars, contributions from 18 countries

Strengths

- Deep theoretical fluency and exceptional applied skills

- Known for elegant, well-documented, mathematically sound code

- Strong mentorship and peer review history in academic and industry settings