Divyansh Pareek

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EDUCATION

University of Washington — Seattle, USA
Ph.D. in Computer Science and Engineering — Sep 2023-Present
Advisors: Prof. Simon S Du and Prof. Sewoong Oh — GPA: 3.94/4.0

Carnegie Mellon University — Pittsburgh, USA
M.S. in Machine Learning — Aug 2019 - Dec 2020
Advisor: Prof. Andrej Risteski — GPA: 4.15/4.0

Indian Institute of Technology Bombay — Mumbai, India
B.Tech. in Computer Science and Engineering — July 2015 - May 2019
Minor in Applied Statistics — GPA: 9.53/10.0

EMPLOYMENT

Citadel GQS — Chicago, USA
Quantitative Research Analyst in the GQS division — March 2021 - June 2023
Managers: Dr. Nasko Atanasov and Dr. Yuanhao Zhai

INTERNSHIPS

Google DeepMind — Bangalore, India
Student Researcher — Summer 2025

Citadel GQS — Chicago, USA
Quantitative Research Intern — Summer 2020

Google Brain — Toronto, Canada
Research Software Intern — Summer 2018

INRIA — Sophia Antipolis, France
Research Intern — Summer 2017

PUBLICATIONS

Statistical Limits of Multimodal Learning under Stochastic Pairing
Divyansh Pareek, Sewoong Oh and Simon S Du — [Available on request]
Characterization of minimax rates for subspace estimation in multimodal learning under a model of imperfect pairing between modalities (e.g., images and text captions) capturing the noise in internet-scale data. — Preprint 2026

Understanding the Gain from Data Filtering in Multimodal Contrastive Learning
Divyansh Pareek, Sewoong Oh and Simon S Du — [Proceedings Link]
Advances in Neural Information Processing Systems, 2025 — NeurIPS 2025

Understanding the Gains from Repeated Self-Distillation
Divyansh Pareek, Simon S Du and Sewoong Oh — [Proceedings Link]
Advances in Neural Information Processing Systems, 2024 — NeurIPS 2024
Data-Centric Machine Learning Research (DMLR) workshop at ICML, 2024

The Effects of Invertibility on the Representational Complexity of Encoders in VAEs
Divyansh Pareek and Andrej Risteski — [Arxiv Link]
International Conference on Learning Representations, 2022 — ICLR 2022

Strong Collapse for Persistence
Jean-Daniel Boissonnat, Siddharth Pritam and Divyansh Pareek — [Arxiv Link]
European Symposium on Algorithms, 2018 — ESA 2018

ACHIEVEMENTS

- All India Rank 5 in JEE Main'15 out of 1.3M candidates and All India Rank 18 in JEE Advanced'15 out of 150K candidates
- Institute Academic Prize by IIT Bombay
- Charpak Research Intern Scholarship by the French Embassy in India
- KVPY and NTSE fellowships by the Govt. of India