Ameer Dharamshi

PHD STUDENT · BIOSTATISTICS

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Education

University of Washington   *Seattle, WA, USA*

PHD IN BIOSTATISTICS   *September 2022 - Present*
- Advisors: Daniela Witten and Jon Wakefield

University of Toronto   *Toronto, ON, Canada*

MSC IN STATISTICAL SCIENCES   *September 2019 - June 2020*

University of Waterloo   *Waterloo, ON, Canada*

BMATH IN MATHEMATICS/CPA   *September 2013 - June 2018*
- Minors in Statistics and Computer Science

Professional Experience

2022-Present	**Graduate Research Assistant**, Department of Biostatistics, University of Washington
2020-2022	**Research & Data Consultant**, Global Education Monitoring Report, UNESCO
2021-2022	**Part-time Researcher**, Bayesian Demography Lab, University of Toronto
2018-2019	**Consultant**, Deloitte Canada

Publications

PUBLISHED

Neufeld, A., **Dharamshi, A.**, Gao, L. L., & Witten, D. (2024). Data thinning for convolution-closed distributions. *To appear in Journal of Machine Learning Research*. Available from: `https://doi.org/10.48550/arXiv.2301.07276`.

Dharamshi, A., Ngo, V., & Rosenthal, J. S. (2023). Sampling by divergence minimization. *Communications in Statistics - Simulation and Computation*. Available from: `https://doi.org/10.1080/03610918.2023.2199352`.

Dharamshi, A., Barakat, B., Alkema, L. & Antoninis, M. (2022) A Bayesian model for estimating Sustainable Development Goal indicator 4.1.2: School completion rates. *Journal of the Royal Statistical Society: Series C (Applied Statistics)*, 71(5), 1822–1864. Available from: `https://doi.org/10.1111/rssc.12595`.

PREPRINTS

Dharamshi, A., Alexander, M., Winant, C. & Barbieri, M. (2023). Jointly estimating subnational mortality for multiple populations. *arXiv preprint*. Available from: `https://doi.org/10.48550/arXiv.2310.03113`

Dharamshi, A., Neufeld, A., Motwani, K., Gao, L. L., Witten, D. & Bien, J. (2023). Generalized data thinning using sufficient statistics. *arXiv preprint*. Available from: `https://doi.org/10.48550/arXiv.2303.12931`.

Dharamshi, A., Antoninis, M., Montoya, S. & Barakat, B. (2023). A Bayesian cohort model for estimating out-of-school rates and populations. *SocArXiv preprint*. Available from: `https://osf.io/preprints/socarxiv/sqwb2/`

Scholarships & Awards

2024	**Student Paper Award**, JSM Statistical Learning and Data Science Section
	CSSS Travel Award (EPC 2024), University of Washington
2023-2026	**NSERC PGS D**, Natural Sciences and Engineering Research Council of Canada

2022	**Top Scholar Recruitment Award**, University of Washington
	Faculty of Arts and Science Doctoral Recruitment Award (Declined), University of Toronto
2013-2017	**Faculty of Mathematics Entrance Scholarship**, University of Waterloo
2013	**President's Scholarship of Distinction**, University of Waterloo

Presentations

INVITED TALKS

2023

Generalized data thinning using sufficient statistics. G-Research ML College Talk. (August)

Generalized data thinning using sufficient statistics. International Seminar on Selective Inference. (April)

2022

Estimating SDG 4 Indicators with a Bayesian Modelling Framework: Completion and Out-of-School Rates. 9th Annual Meeting of the Technical Cooperation Group on SDG4 Indicators (TCG): Joint EMIS and Surveys Working Group. (November)

A Bayesian Cohort Model for Estimating SDG Indicator 4.1.4: Out-of-School Rates. STAB Working Group, University of Washington. (November)

2021

Estimating Out-of-School Rates. Bayes Working Group, University of Massachusetts Amherst. (December)

Out-of-School Rate Modelling. 8th Annual Meeting of the Technical Cooperation Group on SDG4 Indicators (TCG): Household Surveys Working Group. (October)

Adjusted Bayesian Completion Rates (ABC). Bayes Working Group, University of Massachusetts Amherst. (June)

CONTRIBUTED PRESENTATIONS

2022

Dharamshi, A., Alexander, M., Winant, C. & Barbieri, M., A Bayesian Hierarchical Model for Jointly Estimating Subnational Mortality for Multiple Populations. Oral presentations:

- European Population Conference 2022, Groningen, Netherlands (presented remotely),
- 6th HMD Symposium, Paris, France,
- PAA Annual Meeting, Atlanta, USA (presented remotely).

2019

Dharamshi, A. & Zou, R. Y., CSEye: A Proposed Solution for Accurate and Accessible One-to-Many Face Verification. Poster:

- AAAI-2019 Student Abstract Tract, Honolulu, USA.

Teaching Experience

University of Washington

Spring 2024	**DATA 558: Statistical Machine Learning for Data Scientists**, Teaching Assistant
Winter 2024	**BIOST 515: Biostatistics II**, Teaching Assistant

University of Toronto

Summer 2020	**STA 302: Methods of Data Analysis I**, Teaching Assistant
Winter 2020	**STA 238: Probability, Statistics and Data Analysis II**, Teaching Assistant
Fall 2019	**STA 237: Probability, Statistics and Data Analysis I**, Teaching Assistant

Summer 2015   **MATH 127: Calculus 1 for the Sciences**, Teaching Assistant
Fall 2014   **MATH 135: Algebra for Honours Mathematics**, Teaching Assistant

Outreach & Professional Development

Peer Review

Demographic Research, Electronic Journal of Statistics

Community Service

2024-Present   **Student Seminar Organizer**, Department of Biostatistics, University of Washington
2023-Present   **EPTEC Committee Member**, Department of Biostatistics, University of Washington
2023-Present   **PARS Reviewer**, Department of Biostatistics, University of Washington
2022-2023   **EDI Committee Member**, Department of Biostatistics, University of Washington

Additional Information

- Technical Skills: R/RMarkdown, Stan, Python, SQL, C/C++, MATLAB, Julia
- General Skills: LaTeX and Microsoft Office
- Languages: English (native), French (basic)
- Hobbies: reading, squash, tennis, skating, baking, board games