

ANUPREET PORWAL

porwaa@uw.edu | (+1) 206 887 8577 | [anupreet-porwal.github.io](https://github.com/anupreet-porwal)

Education	University of Washington, Seattle, Washington (2018-2023) Ph.D. Student, Department of Statistics <ul style="list-style-type: none">• Thesis: Bayesian Models for variable selection [Thesis]• Advisors: Prof. Adrian Raftery, Prof. Abel Rodriguez
	Indian Institute of Technology Kanpur (IIT K), India (2012-17) B.S. – M.S. Dual Degree, Mathematics and Scientific Computing Bachelor’s GPA: 9.1/10.0 ; Master’s GPA: 10.0/10.0 DEPARTMENT RANK: 1 (out of 55 students)
Research Interests	Bayesian Model selection, Bayesian models for Sparsity Probabilistic Machine Learning, Bayesian Statistics, Multi-omics analysis Statistical Modelling Techniques: Regression Analysis, Time Series Analysis
Publications <i>* indicates equal contribution</i>	Anupreet Porwal and Adrian E. Raftery. “Effect of Model Space Priors on Statistical Inference with Model Uncertainty”, <i>New England Journal of Statistics in Data Science</i> (2022). [Paper] Anupreet Porwal and Adrian E. Raftery. “Comparing Methods for Statistical Inference with Model Uncertainty”, <i>Proceedings of the National Academy of Sciences</i> 119, no.16 (2022). [Paper] Anupreet Porwal , Sharmishtha Mitra, and Amit Mitra. “Order estimation of 2-dimensional complex superimposed exponential signal model using exponentially embedded family (EEF) rule: large sample consistency properties”, <i>Multidimensional Systems and Signal Processing</i> 30, no. 3 (2019): 1293-1308. [Paper Presentation Code] Gundeep Arora, Anupreet Porwal , Kanupriya Agarwal, Avani Samdariya, and Piyush Rai. “Small-variance asymptotics for nonparametric Bayesian overlapping stochastic blockmodels”, In <i>IJCAI</i> (2018). [Report Presentation Code] Sharmishtha Mitra and Anupreet Porwal . “Order Estimation of Superimposed Nonlinear Complex Cisoid Model Using Adaptively Penalizing Likelihood Rule: Consistency Results”, <i>DEStech Transactions on Engineering and Technology Research, AMMA</i> (2017). [Paper Presentation Code] Clara Berridge, Yuanjin Zhou, Amanda Lazar, Anupreet Porwal ,..., Jeffrey Kaye. “Control Matters in Elder Care Technology: Evidence and Direction for Designing It In”, <i>Designing Interactive Systems Conference (2022): 1831-1848</i> . [Paper] Anupreet Porwal and Abel Rodriguez. “Laplace Power-expected-posterior priors for generalized linear models with applications to logistic regression”, <i>Bayesian Analysis</i> (2023) [Paper Code] Erina Paul, Himel Mallick, Anupreet Porwal , . . . , Richard Baumgartner. “A survey of Bayesian statistical methods in biomarker discovery and early clinical development”, <i>Communications in Statistics: Case Studies, Data Analysis and Applications</i> (2023). [Paper Code] Anupreet Porwal *, Himel Mallick*, Erina Paul, Satabdi Saha and Vladimir Svetnik. “An Integrated Bayesian Framework for Multi-omics Prediction and Classification”, <i>Statistics in Medicine</i> (2023). [Paper Software]
Submitted Manuscripts & Preprints	Anupreet Porwal and Abel Rodriguez. “Differential shrinkage block- g priors for linear regression”, <i>To be submitted to Bayesian Analysis</i>
Professional Experience	Data Scientist, Analytics, Insights and Measurement (AIM) - Ads, Google Inc. <ul style="list-style-type: none">• Develop survey-based incrementality methodologies to measure the effectiveness of ads campaigns and provide actionable insights Data Science Intern, Ads team, Google Inc. (Summer’22) <ul style="list-style-type: none">• Proposed a user privacy-centric model for brand reach measurement in a cookie-less future• Improved average accuracy by 33% over in-production cross-device reach models

Biostatistics Research Intern, Merck Research Laboratories *(Summer'21)*

- Proposed an **Integrated Bayesian framework for multi-omics** modelling and demonstrated superior performance on 4 public multi-omics datasets
- Developed a **R package [IntegratedLearner](#)** with tutorials, and example data for end users
- Contributed to **review paper** on Bayesian methods in non-clinical discovery

Analyst, North American Liability Strategies, Deutsche Bank, Mumbai *(2017-18)*

- Conducted statistical tests on non-financial non-utilities members of S&P 1500 index to **determine rating metrics that drive credit ratings** for different industries.
- Established that **Overrated companies suffer** in their valuation by regressing EV/LTM EBITDA as a function of difference in true rating and predicted rating from ratings drivers model.

Summer Intern, EMEA Industrials, Deutsche Bank, Mumbai *(Summer'16)*

- **Proposed transformative acquisition** of a leading Swedish sports equipment producer by the largest RV equipment producer of the world and conceptualized **financial and strategic rationale** with better financial outlook for the combined entity.

Relevant Coursework

Statistics and Machine Learning:

- Regression Analysis
- Time Series Analysis
- Bayesian Data analysis
- Probability and Statistics
- Statistical Inference
- Non-Linear Regression
- Prob. Machine learning
- Bayesian Machine learning
- Learning with Kernels
- Statistical Data Mining
- Robust Statistical Methods
- Applied Stochastic Processes

Technical Skills

Advanced: R, Octave, MATLAB, Microsoft Office, \LaTeX
Basic: C, C++, Python, SQL, HTML5, SAS

Scholastic Achievements

- **Dorothy M. Gliford teaching award 2021**
- **Graduate student conference travel award 2021**
- **ISBA conference 2022 travel grant**
- **Boeing International Fellow** - Winter 2021, 2022
- **Coursera Department Fellowship 2018:** outstanding promise for graduate work at UW Seattle
- **B.D.Sanghi Gold Medal 2017:** Best academic performance in Department of Mathematics (IIT K)
- **Prof. Burton J. Moyer Gold Medal:** Best graduating Master's student among all the Natural Sciences department in 2017 (IIT K)
- **Proficiency Medal 2017:** Best graduate project work in Dept. of Mathematics and Statistics (IITK)
- **Academic Excellence Awardee (top 10% of 830 students)** for exemplary academic performance in consecutive academic years 2014-15 and 2015-16
- Inspire and Masters T.A. Scholarship: Conferred by Dept. of Science and Technology, Govt. of India

Research & Teaching Experience

- **Graduate Research Assistant, UW Seattle** *(Spring'20, '21, '22, Winter'21, '22)*
- **Teaching assistant, UW Seattle**
 - STAT/CSSS 536: Analysis of Categorical and Count data *(Autumn'19)*
 - STAT 509/ ECON 580: Econometrics I *(Autumn'18, '20, '21, '22)*

Service

- **UW Statistics Department Diversity, Inclusion, Community & Equity Committee**
 - Led the Pre-application review service (**PARS**) program launched by the department to provide support and mentorship to PhD applicants from historically marginalized groups
- **UW Statistics Department Admissions Screening Committee** *(2020,2021)*
- **UW Statistics Department PhD student peer mentor** *(2020-Present)*
- **Statistics Undergraduate Directed Reading Program, UW Seattle** [[SPA-DRP](#)]
- **Reviewer:** Biometrics Methodology, NEJSDS, Bayesian Analysis and Statistics in Medicine