Cheryl Flynn Brooks

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Website: https://cherylflynn.github.io

PROFESSIONAL POSITIONS

2014-present	AT&T Data Science & AI Research *Principal Inventive Scientist*
2008-09	Liberty Mutual Insurance Company *Actuarial Assistant*

EDUCATION

2014	Ph.D., Statistics Leonard N. Stern School of Business, New York University
2012	M.Phil., Statistics Leonard N. Stern School of Business, New York University
2008	B.A., Honors Economics and Mathematics McGill University

TECHNICAL SKILLS

R, Python, Spark, Hive, SQL, Databricks, Microsoft Azure, Hadoop

EDUCATION

2014	Ph.D., Statistics Leonard N. Stern School of Business, New York University
2012	M.Phil., Statistics Leonard N. Stern School of Business, New York University
2008	B.A., Honors Economics and Mathematics McGill University

PUBLICATIONS

2022	Flynn, C., Guha, A., Majumdar, S., Srivastava, D., and Zhou, Z. Towards Algorithmic Fairness in Space-Time: Filling in Black Holes. *NeurIps 2022 TSRML Workshop*.
2021	Majumdar, S., Flynn, C., and Mitra, R. (2021). Detecting Bias in the Presence of Spatial Autocorrelation. *NeurIPS 2021 AFCR Workshop*.
2020	Farias, V., Brito, F., Flynn, C., Machado, J., Majumdar, S., and Srivastava, D. (2020). Local Dampening: Differential Privacy for Non-numeric Queries via Local Sensitivity. *Proceedings of the VLDB Endowment*, 14(4), 521-533.
2020	Flynn, C. and Perry, P. (2020). Profile Likelihood Biclustering. *Electronic Journal of Statistics*, 14(1): 731-768.

2019 Dodwell, E., Flynn, C., Krishnamurthy, B., Majumdar, S., and Mitra, R. Exploring Demographic Bias and its Mitigation in Machine Learning. *AT&T Internal*. TD:102494.

2018 Li, R., Jian, J., Ju, C., Flynn, C., Hsu, W., Wang, J., Wang, W., and Xu, T. (2018). Enhancing Response Generation Using Chat Flow Identification. *KDD Workshop on Conversational AI.*

2017 Xi, H., Machanavajjhala, A., Flynn, C., and Srivastava, D. (2017). Composing Differential Privacy and Secure Computation: A case study on scaling private record linkage. *In Proceedings of the ACM Conference on Computer and Communications Security.*

2017 Flynn, C., Hurvich, C., and Simonoff, J. (2017). On the Sensitivity of the Lasso to the Number of Predictor Variables. *Statistical Science*, 32(1): 88-105.

2016 Flynn, C., Shirley, K., and Wang, W. (2016). Deconstructing Domain Names to Reveal Latent Topics. *In Proceedings of the IEEE International Conference on Data Science and Advanced Analytics.*

2016 Flynn, C., Hurvich, C., and Simonoff, J. (2016). Discussion: Deterioration of performance of the lasso with many predictors. *Statistical Modelling*, 16(3): 212-216.

2013 Flynn, C., Hurvich, C., and Simonoff, J. (2013). Efficiency for Regularization Parameter Selection in Penalized Likelihood Estimation of Misspecified Models. *Journal of the American Statistical Association*, 108(503): 1031-1043.

WORKING PAPERS

2022 Brito, F., Farias, V., Flynn, C., Machado, J., Majumdar, S., and Srivastava, D. Differentially Private Release of Count-Weighted Networks. Submitted.

2020 Dodwell, E., Flynn, C., Krishnamurthy, B., Majumdar, S., and Mitra, R. Towards Integrating Fairness in Industrial Applications. arXiv:2006.06082.

PATENTS

2022 Cheryl Brooks, Aritra Guha, Yaron Kanza, Balachander Krishnamurthy, and Zhengyi Zhou. "Transfer Knowledge From Auxiliary Data For More Inclusive Machine Learning Models", Disclosure Number: 2022-0526, Status: Filed.

2021 Changchuan Yin, Cheryl Brooks, Hemamalini Kosaraju, and Sachin Lohe. "A Machine Learning System for Algorithmic Fairness", Disclosure Number: 2021-0156, Status: Filed.

2020 Cheryl Brooks, Christopher Rath, David Kapilow, Don Green, Kelley Mantione, Mazin Gilbert, Sanjay Krishna, Tan Xu, and Wen-Ling Hsu. "System and Method for Artificial Intelligence Routing of Customer Service Interactions", US Patent Number 10699703.

2020 Balachander Krishnamurthy, Cheryl Brooks, and Subhabrata Majumdar. "Intrinsic Machine Learning Inclusivity", Disclosure Number: 2020-0620, Status: Filed.

MENTORSHIP

2022 AT&T Technology Development Program, Mentor for 3 interns

2017 AT&T Labs Summer Intern Program, Mentor for 3 interns

TEACHING EXPERIENCE

2013	Teaching Assistant, NYU, Fall 2013 Undergraduate/MBA - Introduction to the Theory of Probability
2013	Instructor, NYU, Spring 2013 Undergraduate - Statistics for Business Control
2010-13	Teaching Assistant, NYU, Fall 2010-13 MBA - Statistics and Data Analysis
2010-13	Teaching Assistant, NYU, Fall and Spring 2010-13 Executive MBA - Statistics and Data Analysis
2010	Teaching Assistant, NYU, Spring 2010 Undergraduate - Life Contingencies

AWARDS AND HONORS

2020	VP Team Award - Broadband Consumption Study AT&T Labs Research
2016	Honorable Mention, Best Paper Award IEEE International Conference on Data Science and Advanced Analytics
2014	Travel Award Women in Statistics Conference
2014	Herman E. Krooss Dissertation Award Leonard N. Stern School of Business, New York University
2013-14	Ernest Kurnow Fellowship Leonard N. Stern School of Business, New York University
2013	Travel Award SAMSI Workshop on Low-dimensional Structure in High-dimensional Systems
2008	Graduated with First Class Honors in Economics McGill University
2007-08	Golden Key International Honor Society

PROFESSIONAL SERVICE

2023	Symposium on Data Science & Statistics, Machine Learning Track Chair
2022-24	ASA Section on Statistical Learning & Data Science, Program Chair-Elect
2022	AT&T Data Science Summit, Program Chair
2022	SIGSPATIAL Cup Competition, Organizer
2020	AT&T Data Science Summit, Review Committee
2017-19	AT&T Labs Graduate Student Symposium, Organizer
2017-19	ASA Section on Statistical Computing, Council of Sections Representative
2017-18	ASA Section on Statistical Learning & Data Science, Student Paper Award Committee
2015-17	AT&T NYC Seminar Series, Organizer

Referee:	Biometrika Computational Statistics & Data Analysis Journal of Computational and Graphical Statistics Journal of the American Statistical Association Statistical Modelling: An International Journal Statistical Science

COMMUNITY OUTREACH

2022	Cherry Blossom Prediction Competition, George Mason University, Judge
2020	ASA Undergraduate Virtual Career Fair, Resume Reviewer
2017-20	ASA DataFest at Vassar College, Judge and Consultant
2019	AT&T Labs Youth Technology Day, Data Science Workshop, Consultant
2018	R Forwards Coding Workshop for High School Girls, Consultant
2010-14	New York Cares, Volunteer and Team Leader
2008-09	Liberty Mutual Math Excellence Program, Mentor

REFERENCES

Available upon request.