Cheryl Flynn Brooks

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PROFESSIONAL POSITIONS

2017-present	AT&T Labs - Research Principal Inventive Scientist
2014-17	AT&T Labs - Research Senior Inventive Scientist
2008-09	Liberty Mutual Insurance Company Actuarial Assistant

PROGRAMMING SKILLS

Statistical Software: R, Python
Database Languages: Hive, SQL

EDUCATION

2014	Ph.D., Statistics Leonard N. Stern School of Business, New York University **Dissertation:** Prediction for Data-Dependent Regularization and Consistent Biclustering Advisors: Clifford M. Hurvich, Patrick O. Perry, Jeffrey S. Simonoff
2012	M.Phil., Statistics Leonard N. Stern School of Business, New York University
2008	B.A., Honors Economics and Mathematics McGill University

PUBLICATIONS

2020	Flynn, C. and Perry, P. (2020). Profile Likelihood Biclustering. *Electronic Journal of Statistics*, 14(1): 731-768.
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

2020 Farias, V., Brito, F., Flynn, C., Machado, J., Majumdar, S., and Srivastava, D. Local Dampening: Differential Privacy for Non-numeric Queries via Local Sensitivity. Submitted.

2020 Dodwell, E., Flynn, C., Krishnamurthy, B., Majumdar, S., and Mitra, R. System to Integrate Fairness Transparently: An Industry Approach.

CONFERENCES AND PRESENTATIONS

2019 "Detecting and Mitigating Bias in Targeted Advertising," Industry Talk, AT&T Labs Graduate Student Symposium, New York, New York, November 22, 2019

2019 "Women in Data Science: a Small N Sample," Invited Panel, Joint Statistical Meetings, Denver, Colorado, July 27-August 1, 2019

2019 "Detecting and Mitigating Bias in Targeted Advertising," Meetup, NYC Women in Machine Learning and Data Science, New York, New York, March 26, 2019

2019 "AI Ethics and Fairness," Featured Presentation, AT&T ML Fusion Symposium, Bedminster, New Jersey, February 11, 2019

2017 "Deconstructing Domain Names to Reveal Latent Topics," Invited Session, ISBIS Conference, Yorktown Heights, New York, June 7-9, 2017

2017 "How May I Help You? Deep Learning Topic Identifier for Online Customer Care," Featured Presentation, AT&T Software Symposium, Middletown, New Jersey, April 27, 2017

2016 "Big Data Research at AT&T Labs," Concurrent Session, Women in Statistics and Data Science Conference, Charlotte, North Carolina, October 20-22, 2016

2016 "Deconstructing Domain Names to Reveal Latent Topics," Paper Presentation, IEEE International Conference on Data Science and Advanced Analytics, Montreal, Quebec, October 17-19, 2016

2016 "Optimizing the Customer Experience Using Statistical Methods," Topic Contributed Session, Joint Statistical Meetings, Chicago, Illinois, July 30-August 4, 2016

2016 "Composing Differential Privacy and Secure Multiparty Computation for Efficient Private Record linkage," Poster Session, ICML Workshop on Theory and Practice of Differential Privacy, New York, New York, June 23, 2016

2016 "Big Data Applications at AT&T Labs," Meetup, NYC Women in Machine Learning and Data Science Meetup, New York, New York, June 7, 2016

2014 "On the Sensitivity of the Lasso to the Number of Predictor Variables," Invited Session, Data Mining in Business and Industry sponsored by ISBIS/SLDM, Research Triangle Park, North Carolina, June 9-11, 2014

2014 "Consistent Biclustering," Poster Session, Women in Statistics Conference, Research Triangle Park, North Carolina, May 15-17, 2014

2013 "Profile-Likelihood Based Co-clustering," Poster Session, SAMSI Program on Low-Dimensional Structure in High-dimensional Systems, Research Triangle Park, North Carolina, September 8-12, 2013

2013 "On the Sensitivity of the Lasso to the Number of Predictor Variables," Contributed Session, Joint Statistical Meetings, Montreal, Quebec, August 3-8, 2013

2012 "Consistent Biclustering" Contributed Session, Joint Statistical Meetings, San Diego, California, July 28-August 2, 2012

2011 "Asymptotically Efficient Regularization Parameter Selection in Penalized Regression and Small Sample Corrections," Contributed Session, Joint Statistical Meetings, Miami, Florida, July 30-August 4, 2011

PATENTS

2020 "System and Method for Artificial Intelligence Routing of Customer Service Interactions", US Patent Number 10699703

MENTORSHIP

2017 AT&T Labs Summer Intern, Felix Grezes, CUNY

2017 AT&T Labs Summer Intern, Chris Hidey, Columbia University

2017 AT&T Labs Summer Intern, Pei Tao, Yale University

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

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

2017-19	AT&T Labs Graduate Student Symposium, Co-organizer
2017-19	ASA Section on Statistical Computing, Council of Sections Representative
2017-18	ASA Section on Statistical Learning and Data Science, Student Paper Award Committee
2015-17	AT&T NYC Seminar Series, Co-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

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