

JASON M. KLUSOWSKI

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EDUCATION

Yale University <i>Ph.D. in Statistics & Data Science</i>	2013 - 2018 <i>New Haven, Connecticut, USA</i>
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- Advisor: Professor Andrew R. Barron
- Thesis: “Density, Function, and Parameter Estimation with High-Dimensional Data”
- Francis J. Anscombe Award: “Given on an occasional basis for outstanding academic performance in the Department of Statistics.”

University of Manitoba <i>B.Sc. (Honors) in Mathematics & Statistics</i>	2008 - 2013 <i>Winnipeg, Manitoba, Canada</i>
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- Governor General’s Silver Medal: “Awarded to the undergraduate who achieves the highest academic standing upon graduation from a bachelor degree program.”

EMPLOYMENT

Assistant Professor, Department of Statistics <i>Rutgers, the State University of New Jersey</i>	2018 - Present <i>Piscataway, New Jersey, USA</i>
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GRANTS

NSF DMS-1915932 “Deep Learning & Random Forests for High-Dimensional Regression” <i>Principal Investigator</i>	2019 - 2022 <i>\$180,000</i>
NSF TRIPODS-1934924 “Data Science Principles of the Human-Machine Convergence” <i>Senior Personnel</i>	2019 - 2022 <i>\$500,000</i>

RESEARCH PAPERS

Published

1. Victor-Emmanuel Brunel, **Jason M. Klusowski** Klusowski, and Dana Yang. Estimation of convex supports from noisy measurements. *To appear, Bernoulli*, 2020
2. **Jason M. Klusowski** and Yihong Wu. Estimating the number of connected components in a graph via subgraph sampling. *To appear, Bernoulli*, 2020
3. Zhiqi Bu, **Jason M. Klusowski**, Cynthia Rush, and Weijie Su. Algorithmic analysis and statistical estimation of SLOPE via approximate message passing. In *Advances in Neural Information Processing Systems*, 2019
4. J. M. Klusowski, D. Yang, and W. D. Brinda. Estimating the coefficients of a mixture of two linear regressions by expectation maximization. *IEEE Transactions on Information Theory*, 65(6):3515–3524, June 2019

5. WD Brinda, **Jason M. Klusowski**, and Dana Yang. Hölder's identity. *Statistics & Probability Letters*, 148:150–154, 2019
6. **Jason M. Klusowski** and Andrew R. Barron. Approximation by combinations of ReLU and squared ReLU ridge functions with ℓ^1 and ℓ^0 controls. *IEEE Transactions on Information Theory*, 64(12):7649–7656, Dec 2018
7. **Jason M. Klusowski** and Yihong Wu. Counting motifs with graph sampling. In Sébastien Bubeck, Vianney Perchet, and Philippe Rigollet, editors, *Proceedings of the 31st Conference On Learning Theory*, volume 75 of *Proceedings of Machine Learning Research*, pages 1966–2011. PMLR, 06–09 Jul 2018
8. W. D. Brinda and **Jason M. Klusowski**. Finite-sample risk bounds for maximum likelihood estimation with arbitrary penalties. *IEEE Transactions on Information Theory*, 64(4):2727–2741, 2018
9. **Jason M. Klusowski** and Andrew R. Barron. Minimax lower bounds for ridge combinations including neural nets. In *Information Theory (ISIT), 2017 IEEE International Symposium on*, pages 1376–1380. IEEE, 2017

Under Review

1. Zhiqi Bu, **Jason M. Klusowski**, Cynthia Rush, and Weijie Su. Optimal SLOPE power and false positives trade-off. 2020
2. **Jason M. Klusowski**. Sharp analysis of a simple model for random forests. *Revise and resubmit to Bernoulli*, 2019
3. Andrew R. Barron and **Jason M. Klusowski**. Approximation and estimation for high-dimensional deep learning networks. *Revise and resubmit to IEEE Transactions on Information Theory*, 2019
4. Ryan Theisen, **Jason M. Klusowski**, Huan Wang, Nitish Shirish Keskar, Caiming Xiong, and Richard Socher. Global capacity measures for deep ReLU networks via path sampling. *arXiv preprint arXiv:1910.10245*, 2019
5. **Jason M. Klusowski**. Analyzing CART. *arXiv preprint arXiv:1906.10086*, 2019

OTHER RESEARCH PROJECTS

Yale University School of Management
Research Assistant

2014 - 2016

New Haven, CT, USA

- Supervisor: Dr. Marina Niessner
- Topics: Analyzed investor disagreement on social media platform; built classification models to predict sentiment from text
- Project Title: *Why Don't We Agree? Evidence from a Social Network of Investors*
- J. Anthony Cookson and Marina Niessner. Why don't we agree? Evidence from a social network of investors. *The Journal of Finance*, 2019

TEACHING EXPERIENCE

Rutgers University, Department of Statistics
Instructor

Fall 2019

New Brunswick, NJ, USA

- STAT 534 - Statistical Learning for Data Science (MSDS)

Rutgers University, Department of Statistics
Instructor

Fall 2018

New Brunswick, NJ, USA

- STAT 581 - Probability & Statistical Inference (MSDS & FSRM)

Rutgers University, Department of Statistics
Instructor

Spring 2019

New Brunswick, NJ, USA

- STAT 597 - Data Wrangling & Husbandry (MSDS)

Yale University, Department of Statistics & Data Science
Teaching Fellow

2014 - 2017
New Haven, CT, USA

- STAT 664 - Information Theory
- STAT 541 - Probability Theory
- STAT 365 - Data Mining and Machine Learning
- STAT 312 - Linear Models
- STAT 238 - Probability and Statistics

INVITED TALKS & PRESENTATIONS

Princeton University <i>Department of Operations Research & Financial Engineering</i>	November 22, 2019
Rutgers University <i>Department of Electrical and Computer Engineering</i>	October 2, 2019
Pennsylvania State University <i>Department of Mathematics</i>	September 27, 2019
Columbia University <i>Department of Statistics</i>	September 16, 2019
Duke University <i>SAMSI Deep Learning Workshop</i>	August 13, 2019
Colgate-Palmolive Company	August 6, 2019
Merck & Co., Inc.	July 17, 2019
Columbia University <i>Workshop on Machine Learning and Data Science</i>	June 19, 2019
Virginia Tech <i>IMS/ASA Spring Research Conference</i>	May 22, 2019
New England Statistics Symposium	May 17, 2019
Princeton University <i>Department of Operations Research & Financial Engineering</i>	April 8, 2019
University of Maryland - College Park <i>Department of Mathematics</i>	October 16, 2018
Georgia Institute of Technology <i>Workshop on Theoretical Foundation of Deep Learning</i>	October 8, 2018
Simon Fraser University <i>20th IMS New Researchers Conference</i>	July 26, 2018
Massachusetts Institute of Technology <i>Workshop on Sublinear Algorithms</i>	June 11, 2018
Baruch College, Zicklin School of Business <i>Department of Information Systems and Statistics</i>	February 14, 2018

University of North Carolina - Chapel Hill <i>Department of Statistics and Operations Research</i>	February 5, 2018
Rutgers University <i>Department of Statistics and Biostatistics</i>	February 1, 2018
University of Delaware <i>Department of Applied Economics and Statistics</i>	January 23, 2018
Indiana University <i>Department of Statistics</i>	January 16, 2018
University of Notre Dame <i>Department of Applied and Computational Mathematics and Statistics</i>	January 12, 2018
Queen's University <i>Department of Mathematics and Statistics</i>	November 29, 2017
IEEE International Symposium on Information Theory <i>Aachen, Germany</i>	June 27, 2017
Boston Machine Learning Group <i>StubHub, Boston, MA, USA</i>	June 6, 2016
Université de Montréal <i>Canadian Undergraduate Mathematics Conference</i>	July 2013
UBC Okanagan <i>Canadian Undergraduate Mathematics Conference</i>	July 2012

SERVICE

Ad-hoc Reviewer	2016 - Present
<ul style="list-style-type: none"> · <i>Annals of Statistics</i> · <i>Electronic Journal of Statistics</i> · <i>Journal of the American Statistical Association</i> · <i>Statistica Sinica</i> · <i>Journal of Machine Learning Research</i> · <i>IEEE Transactions on Signal and Information Processing over Networks</i> · <i>IEEE Transactions on Information Theory</i> · <i>Entropy</i> · <i>Applied and Computational Harmonic Analysis</i> · <i>Journal of Nonparametric Statistics</i> · <i>Statistical Science</i> · <i>Neural Networks</i> · <i>Operations Research</i> · <i>SIAM Journal on Mathematics of Data Science</i> · <i>Probability & Statistics Letters</i> · <i>2018 IEEE International Symposium on Information Theory (ISIT)</i> · <i>2019 IEEE International Symposium on Information Theory (ISIT)</i> · <i>2019 International Conference on Machine Learning (ICML)</i> 	
Rutgers University, Committee Member	Fall 2018 - Present

- Financial Statistics and Risk Management Program
- Professional Master's Program in Data Science
- Undergraduate Studies
- Student Outreach
- Social / Retreat

University of Manitoba, Department of Statistics Departmental Council

2012

- Undergraduate Student Representative (voting member)

AFFILIATIONS

IEEE Information Theory Society
American Statistical Association

AWARDS & SCHOLARSHIPS

Yale University

2014 - 2016

- *Clarke Fellow*
Wedworth W. Clarke (B.A. 1906) Scholarship Fund

Government of Canada

2013

- *NSERC Alexander Graham Bell Canada Graduate Scholarship* (\$17,500)
NSERC Postgraduate Scholarship accepted in its place

Government of Canada

2011 - 2013

- *NSERC Undergraduate Summer Research Award* (\$4,500)

University of Manitoba

2013

- *Governor General's Silver Medal*
For highest academic standing at the undergraduate level
- *Faculty of Science Medal in B.Sc. (Honours)*
For highest standing in a faculty or school program
- *Robert Ross McLaughlin Scholarship in Mathematics* For a full-time student who has achieved the highest standing in the third year of any mathematics honours program

University of Manitoba

2012

- *St. Paul's College, Patrick Burke-Gaffney Prize in Mathematics*
For academic achievement
- *Dr. Cyril H. Goulden Memorial Scholarship in Statistics*
For high standing in honours statistics
- *University of Manitoba Student's Union Scholarship*
For excellence in academic achievement at the University of Manitoba
- *University of Manitoba Merit Award*

University of Manitoba

2011

- *Agnes Stewart Hart Award in Mathematics*
For high standing in the major or honours program in mathematics by a second or third year degree student in the Faculty of Science
- *University of Manitoba Student's Union Scholarship*
For excellence in academic achievement at the University of Manitoba

- *Isbister Scholarship in University 1*
For highest standing in University 1 and continuation in any degree program at the University of Manitoba
- *Rosabelle Searle Leach Scholarship in Science*
For highest standing in first year science)
- *Science Classes of 1943 and 1968 Reunion Scholarship (2x)*
For academic achievement in the first year of an undergraduate program in science
- *University of Manitoba Student's Union Scholarship*
For excellence in academic achievement at the University of Manitoba
- *University of Manitoba Calculus Prize - Nelson Education*

TECHNICAL STRENGTHS

Computer Languages R, Python, MATLAB