**Wesley Tansey**

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wesleytansey.com      Mudd Building, 500 W 120th St., New York, NY 10027

**Education**

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| 2011–2017 | **PhD in Computer Science, University of Texas at Austin** |
|  | Advisor: Prof. James G. Scott |
|  | Dissertation: Scalable smoothing algorithms for massive graph-structured data |
| 2006–2008 | **MS in Computer Science, Virginia Tech** |
| 2003–2006 | **BS in Computer Science, Virginia Tech** |
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**Academic Appointments**

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| 2017–Present | **Postdoctoral Research Scientist, Columbia University** |
|  | Supervisors: Profs. Raul Rabadan and David Blei |
| 2016 | **Visiting Researcher, Duke University** |
|  | Supervisor: Prof. Lawerence Carin |
| 2015 | **Visiting Researcher, Stanford University** |
|  | Supervisor: Prof. Russell Poldrack |

**Awards**

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| Columbia Data Science Institute Seed Funds Grant |
| 2x Recipient of the Garg Fellowship for Research with Real-World Impact |
| Recipient of NSF Beacon Grant |
| NSF Graduate Research Fellowship Program, Honorable Mention in Machine Learning |
| Outstanding Graduate Student Award, Virginia Tech |

**Professional Service**

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| **Co-organizer:**2018, 2019, & 2020 ICML Workshop on Computational Biology |
| **Reviewer:**JASA, AoS, AoAS, Biostatistics, Biometrika, JMLR, NeurIPS |
| **Mentor:**UT Austin Intellectual Entrepreneurship pre-grad program |

**Other Experience**

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| 2014 | **Data Science Intern, MyFitnessPal** |
| 2013–2014 | **Machine Learning Consultant, Atlas Wearables** |
| 2013 | **Software Engineering Intern, Google** |
| 2011–2014 | **Teaching Assistant, Computer Science Department, UT Austin** |
| 2011–2012 | **Co-founder, Curvio (Tech Startup)** |
| 2010 | **Co-founder, EffectCheck (Tech Startup)** |
| 2010–2011 | **Machine Learning Consultant, Natural Selection Financial** |
| 2008–2010 | **Quantitative Research Associate, Lincoln Vale Adaptive Strategies (Hedge Fund)** |
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**Publications and Preprints**

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| 2019 | **W. Tansey**, J. H. Loper, L. Lei, and W. Fithian. Smoothed nested testing on directed acyclic graphs. *arXiv preprint arXiv:1911.09200*, 2019. |
| 2019 | **W. Tansey**, C. Tosh, and D. M. Blei. Relational dose-response modeling for cancer drug studies. *arXiv preprint arXiv:1906.04072*, 2019. |
| 2019 | C. Burns, J. Thomason, and **W. Tansey**. Interpreting black box models via hypothesis testing. *arXiv preprint arXiv:1904.00045*, 2019. |
| 2018 | **W. Tansey**, K. Li, H. Zhang, S. W. L. Linderman, R. Rabadan, D. M. Blei, and C. H. Wiggins. Dose-response modeling in high-throughput cancer drug screenings: An end-to-end approach. *In revision at Biostatistics (arXiv preprint arXiv:1812.05691)*, 2018. |
| 2018 | **W. Tansey**, V. Veitch, H. Zhang, R. Rabadan, and D. M. Blei. The holdout randomization test: Principled and easy black box feature selection. *arXiv preprint* *arXiv:1811.00645*, 2018. |
| 2018 | **W. Tansey**, Y. Wang, D. M. Blei, and R. Rabadan. Black box FDR. In *International* *Conference on Machine Learning*, pages 4874–4883, 2018. |
| 2018 | **W. Tansey**, O. Koyejo, R. A. Poldrack, and J. G. Scott. False discovery rate smoothing. *Journal of the American Statistical Association*, 113(523):1156–1171, 2018. |
| 2018 | **W. Tansey**, K. Pichotta, and J. G. Scott. Leaf-smoothed hierarchical softmax for ordinal prediction. In *AAAI Conference on Artificial Intelligence*, 2018. |
| 2018 | **W. Tansey**, J. Thomason, and J. G. Scott. Maximum-variance total variation denoising for interpretable spatial smoothing. In *AAAI Conference on Artificial Intelligence*, 2018. |
| 2017 | **W. Tansey**, A. Athey, A. Reinhart, and J. G. Scott. Multiscale spatial density smoothing: an application to large-scale radiological survey and anomaly detection. *Journal of the* *American Statistical Association*, 112(519):1047–1063, 2017. |
| 2016 | **W. Tansey**, E. W. Lowe, and J. G. Scott. Diet2vec: Multi-scale analysis of massive dietary data. In *NIPS Workshop on Machine Learning for Health*, 2016. |
| 2015 | **W. Tansey**, O.-H. Madrid-Padilla, A. Suggala, and P. Ravikumar. Vector-space markov random fields via exponential families. In *International Conference on Machine Learning*, 2015. |
| 2012 | R. Miikkulainen, E. Feasley, L. Johnson, I. Karpov, P. Rajagopalan, A. Rawal, and **W.** **Tansey**. Multiagent learning through neuroevolution. *Advances in Computational* *Intelligence*, pages 24–46, 2012. |
| 2012 | **W. Tansey**, E. Feasley, and R. Miikkulainen. Accelerating evolution via egalitarian social learning. In *International Conference on Genetic and Evolutionary Computation Conference*, pages 919–926. ACM, 2012. |
| 2009 | M. Song, E. Tilevich, and **W. Tansey**. Trailblazer: A tool for automated annotation refactoring. In *ACM SIGPLAN Conference on Object-Oriented Programming Systems,* *Languages, and Applications*, pages 813–814. ACM, 2009. |
| 2008 | **W. Tansey**and E. Tilevich. Annotation refactoring: Inferring upgrade transformations for legacy applications. In *ACM SIGPLAN Conference on Object-Oriented Programming* *Systems, Languages, and Applications*, volume 43, pages 295–312. ACM, 2008. |
| 2008 | **W. Tansey**and E. Tilevich. Efficient automated marshaling of C++ data structures for MPI applications. In *IEEE International Symposium on Parallel and Distributed Processing*, pages 1–12. IEEE, 2008. |
| 2008 | S. Gopal, **W. Tansey**, G. Kannan, and E. Tilevich. DeXteR: An extensible framework for declarative parameter passing in distributed object systems. In *ACM/IFIP/USENIX* *International Conference on Middleware*, pages 144–163. Springer-Verlag New York, Inc., 2008. |
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**Invited Talks**

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| 2020 | Columbia University, Symposium on Probability and Society. |
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| 2020 | Johns Hopkins University, Department of Biostatistics Seminar. |
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| 2020 | University of California at Los Angeles, Department of Biostatistics Seminar. |
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| 2020 | Columbia University, Department of Statistics Seminar. |
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| 2020 | University of British Columbia, Department of Medical Genetics Seminar. |
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| 2020 | Duke University, AI + Health Seminar. |
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| 2020 | University of North Carolina at Chapel Hill, Computational Medicine Seminar. |
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| 2020 | MD Anderson, Bioinformatics and Computational Biology Seminar. |
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| 2020 | Memorial Sloan Kettering Cancer Center, Computational Oncology Seminar. |
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| 2020 | University of Minnesota, Department of Statistics Seminar. |
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| 2020 | University of Texas at Austin, Department of Statistics and Data Sciences Seminar. |
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| 2020 | University of Illinois at Urbana-Champaign, Department of Statistics Seminar. |
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| 2020 | Purdue University, Department of Electrical and Computer Engineering Seminar. |
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| 2020 | University of Chicago, Booth School of Business Seminar. |
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| 2019 | Broad Institute, Seminar Series on Models, Inference, and Algorithms. |
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| 2018 | Broad Institute, Next Generation in Biomedicine Symposium. |
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| 2018 | Broad Institute, Nature Conference on Big Data and Cancer. |
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| 2018 | University of Illinois at Urbana-Champaign, Department of Computer Science Seminar. |
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| 2018 | University of Notre Dame, Department of Statistics Seminar. |
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| 2018 | University of Chicago, Department of Statistics. |
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| 2018 | International Conference on Machine Learning; Stockholm, Sweden. |
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| 2018 | University of Texas at Austin, Department of Statistics Seminar. |
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| 2016 | NIPS Workshop on Machine Learning for Health; Barcelona, Spain. |
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| 2015 | Invited Session at Joint Statistical Meetings; Seattle, WA. |
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| 2015 | International Conference on Machine Learning; Lille, France. |
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| 2015 | ISBA Nonparametric Bayes; Raleigh, NC. |
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| 2012 | International Conference on Genetic and Evolutionary Computation Conference; Philadelphia, PA. |
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| 2009 | ACM SIGPLAN Conference on Object Oriented Programming Systems, Languages, and Applications; Nashville, TN. |
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| 2008 | IEEE International Symposium on Parallel and Distributed Processing; Miami, FL. |
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