Wesley Tansey

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Education

2011–2017 **PhD in Computer Science, University of Texas at Austin**
2006–2008 **MS in Computer Science, Virginia Tech**
2003–2006 **BS in Computer Science, Virginia Tech**

Experience

2017–Present **Postdoctoral Research Scientist, Columbia University**
Supervisors: Profs. Raul Rabadan, Chris Wiggins, and David Blei.

2011–2017 **Graduate Research Assistant, UT Austin**
Advisor: Prof. James G. Scott.

2016 **Visiting Researcher, Duke University**
Supervisor: Prof. Lawerence Carin

2015 **Visiting Researcher, Stanford University**
Supervisor: Prof. Russell Poldrack

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)**

Publications

2018 **Tansey, W.**, Y. Wang, D. B. Blei, and R. Rabadan. Black box FDR. In *Accepted to International Conference on Machine Learning (ICML'18)*, 2018c.

2018 **Tansey, W.**, K. Pichotta, and J. G. Scott. Leaf-smoothed hierarchical softmax for ordinal prediction. In *Proceedings of the 32nd AAAI Conference on Artificial Intelligence (AAAI'18)*, 2018a.

2018 **Tansey, W.**, J. Thomason, and J. G. Scott. Maximum-variance total variation denoising for interpretable spatial smoothing. In *Proceedings of the 32nd AAAI Conference on Artificial Intelligence (AAAI'18)*, 2018b.

2017 **Tansey, W.**, O. Koyejo, R. Poldrack, and J. Scott. False discovery rate smoothing. *Journal of the American Statistical Association*, 2017b.

2017 **Tansey, W.**, 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, 2017a.

2016 **Tansey, W.**, E. W. Lowe, and J. G. Scott. Diet2vec: Multi-scale analysis of massive dietary data. In *Proceedings of the 2016 NIPS Workshop on Machine Learning for Health*, 2016.

2015 **Tansey, W.**, O.-H. Madrid-Padilla, A. Suggala, and P. Ravikumar. Vector-space markov random fields via exponential families. In *Proceedings of the 32nd International Conference on Machine Learning (ICML'15)*, 2015.

2012 R. Miikkulainen, E. Feasley, L. Johnson, I. Karpov, P. Rajagopalan, A. Rawal, and **Tansey, W.** Multiagent learning through neuroevolution. *Advances in Computational Intelligence*, pages 24–46, 2012.

2012 **Tansey, W.**, E. Feasley, and R. Miikkulainen. Accelerating evolution via egalitarian social learning. In *Proceedings of the Fourteenth International Conference on Genetic and Evolutionary Computation Conference (GECCO 2012)*, pages 919–926. ACM, 2012.

2009 M. Song, E. Tilevich, and **Tansey, W.** Trailblazer: a tool for automated annotation refactoring. In *Proceedings of the 24th ACM SIGPLAN conference companion on Object oriented programming systems languages and applications (OOPSLA 2009)*, pages 813–814. ACM, 2009.

2008 **Tansey, W.** and E. Tilevich. Annotation refactoring: inferring upgrade transformations for legacy applications. In *Proceedings of the 23rd ACM SIGPLAN Conference on Object-Oriented Programming Systems, Languages, and Applications (OOPSLA 2008)*, volume 43, pages 295–312. ACM, 2008b.

2008 **Tansey, W.** and E. Tilevich. Efficient automated marshaling of C++ data structures for MPI applications. In *Proceedings of the 2008 IEEE International Symposium on Parallel and Distributed Processing (IPDPS 2008)*, pages 1–12. IEEE, 2008a.

2008 S. Gopal, **Tansey, W.**, G. Kannan, and E. Tilevich. Dexter: An extensible framework for declarative parameter passing in distributed object systems. In *Proceedings of the 9th ACM/IFIP/USENIX International Conference on Middleware*, pages 144–163. Springer-Verlag New York, Inc., 2008.

Professional Service

Co-organizer: 2018 ICML Workshop on Computational Biology
Reviewer: JASA (Theory & Methods), AoAS, JMLR, NIPS
Intellectual Entrepreneurship pre-grad mentor

Presentations and Talks

"Black Box FDR"; ICML'18; Stockholm, Sweden; 2018

"Predictive Modeling of Treatment Efficacy in Cancer Cell Lines"; Department of Statistics, University of Texas at Austin; Austin, TX; 2018

"Diet2Vec: Multi-scale Analysis of Massive Dietary Data"; NIPS Workshop on Machine Learning for Health (poster); Barcelona, Spain; 2016

"False Discovery Rate Smoothing"; Joint Statistical Meetings; Seattle, WA; 2015

"Vector-space MRFs via Exponential Families"; The 32nd International Conference on Machine Learning; Lille, France; 2015

"False Discovery Rate Smoothing"; ISBA Nonparametric Bayes; Raleigh, NC; 2015

"Accelerating Evolution via Egalitarian Social Learning"; International Conference on Genetic and Evolutionary Computation Conference; Philadelphia, PA; 2012

"Annotation Refactoring: Inferring Upgrade Transformations for Legacy Applications"; 24th ACM SIGPLAN Conference on Object Oriented Programming Systems, Languages, and Applications; Nashville, TN; 2009

"Efficient Automated Marshaling of C++ Data Structures for MPI Applications"; IEEE International Symposium on Parallel and Distributed Processing; Miami, FL; 2008

Awards and Miscellanea

Columbia Data Science Institute Seed Funds Grant: $200K to develop personalized cancer therapies using deep probabilistic models

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

Projects available on my website: `http://cs.utexas.edu/~tansey`