

Wesley Tansey

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Education

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

Publications

- 2017 **Tansey, W.**, O. Koyejo, R. Poldrack, and J. Scott. False discovery rate smoothing. *Accepted to the Journal of the American Statistical Association: Theory and Methods (subject to minor revisions)*, 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. *Accepted to the Journal of the American Statistical Association: Applications and Case Studies*, 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

Presentations and Talks

“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

Experience

Currently	PhD Candidate, UT Austin Advisor: Prof. James G. Scott. Focused on high-dimensional inference problems in machine learning.
2016	Visiting Researcher, Duke University Supervisor: Prof. Lawrence Carin Investigated scalable Bayesian methods
2015	Visiting Researcher, Stanford University Supervisor: Prof. Russell Poldrack Worked on large-scale multiple hypothesis testing techniques for fMRI data.
2014	Data Science Intern, MyFitnessPal Statistical modeling of millions of nutritional diaries. Created large-scale inference experiments to predict user weight-loss success.
2013-2014	Machine Learning Consultant, Atlas Wearables Designed initial exercise recognition algorithm for a new smart watch. Brought a working product to market with excellent recognition performance in the real world.
2013	Software Engineering Intern, Google Researched how to improve automated auction bidding. Implemented and evaluated alternative bidding strategy experiments on massive datasets.
2011-2014	Teaching Assistant, Computer Science Department, UT Austin Participated in developing course materials for hundreds of students. Helped setup up competition for AI MOOC class taught by Peter Norvig. Directly managed team of four undergrad researchers.
2011-2012	Co-founder, Curvio Inc.

	<p>Built, launched, and iterated a consumer web startup. Organically grew site to 2k uniques/day. Managed a team of 12 remote contractors and hundreds of turkers.</p>
2010	<p>Co-founder, EffectCheck (Effect Technologies Inc.) Created novel machine learning algorithms for sentiment analysis. Worked all areas of the business: front-end, back-end, sales, partnerships, and marketing.</p>
2010-2011	<p>Machine Learning Contractor, Natural Selection Financial Researched adaptive machine learning models for quantitative finance. Developed algorithms that explore huge data sets and discover exploitable patterns in market prices.</p>
2008-2010	<p>Research Associate, Lincoln Vale Adaptive Strategies (Hedge Fund) Researched and implemented machine learning algorithms for automated trading. Developed 20+ real-world trading algorithms, with millions of dollars wagered on their predictions every day.</p>

Awards and Miscellanea

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>