Oluwasanmi Koyejo

Curriculum Vitae

Engineering Research Associate
Department of Psychology,
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Lab: https://poldracklab.stanford.edu
Code: https://github.com/sanmik

Academic Positions

2014 -	Engineering Research Associate	Stanford University (PI: R. Poldrack)
2013 - 2014	Research Associate	UT Austin (PI: R. Poldrack & P. Ravikumar)

Education

2013 - 2013	Postdoctoral Fellow	UT Austin (PI: R. Poldrack & P. Ravikumar)
2013	Ph.D., Electrical Engineering	UT Austin (Advisor: J. Ghosh)
2008	M.S., Electrical Engineering	UT Austin
2005	B.S. (Hons), Electrical Engineering & Minor in Statistics	New Jersey Institute of Technology (NJIT)

Scientific products

Technical publications

1. Avradeep Bhowmik, Joydeep Ghosh, and **Oluwasanmi Koyejo**. Generalized linear models for aggregated data. In *Proceedings of the 18th International conference on Artificial Intelligence and Statistics (AISTATS)*, 2015

2. Rajiv Khanna, Joydeep Ghosh, Russell A. Poldrack, and **Oluwasanmi Koyejo**. Sparse submodular probabilistic PCA. In *Proceedings of the 18th International conference on Artificial Intelligence and Statistics (AISTATS)*, 2015

3. **Oluwasanmi Koyejo***, Nagarajan Natarajan*, Pradeep K Ravikumar, and Inderjit S Dhillon. Consistent binary classification with generalized performance metrics. In *Advances in Neural Information Processing Systems*, pages 2744–2752, 2014

4. **Oluwasanmi Koyejo**, Rajiv Khanna, Joydeep Ghosh, and Russell Poldrack. On prior distributions and approximate inference for structured variables. In *Advances in Neural Information Processing Systems*, pages 676–684, 2014

5. Anqi Wu, Mijung Park, **Oluwasanmi Koyejo**, and Jonathan W Pillow. Sparse Bayesian structure learning with "dependent relevance determination" priors. In *Advances in Neural Information Processing Systems*, pages 1628–1636, 2014

6. **Oluwasanmi Koyejo**, Cheng Lee, and Joydeep Ghosh. A constrained matrix-variate Gaussian process for transposable data. *Machine Learning*, 97(1-2):103–127, 2014

7. **Oluwasanmi Koyejo** and Joydeep Ghosh. Constrained Bayesian inference for low rank multitask learning. In *Proceedings of the 29th conference on Uncertainty in Artificial Intelligence (UAI)*, pages 97–106, 2013

8. Russell A Poldrack, Deanna M Barch, Jason P Mitchell, Tor D Wager, Anthony D Wagner, Joseph T Devlin, Chad Cumba, **Oluwasanmi Koyejo**, and Michael P Milham. Toward open sharing of task-based fMRI data: the openfMRI project. *Frontiers in Neuroinformatics*, 7, 2013

9. Mijung Park*, **Oluwasanmi Koyejo***, Joydeep Ghosh, Russell Poldrack, and Jonathan Pillow. Bayesian structure learning for functional neuroimaging. In *Proceedings of the Sixteenth International Conference on Artificial Intelligence and Statistics*, pages 489–497, 2013

10. Cheng H Lee, **Oluwasanmi Koyejo**, and Joydeep Ghosh. Identifying candidate disease genes using a trace norm constrained bipartite raking model. In *Engineering in Medicine and Biology Society (EMBC), 2013 35th Annual International Conference of the IEEE*, pages 3459–3462. IEEE, 2013

11. **Oluwasanmi Koyejo**, Priyank Patel, Joydeep Ghosh, and Russell A Poldrack. Learning predictive cognitive structure from fMRI using supervised topic models. In *Pattern Recognition in Neuroimaging (PRNI), 2013 International Workshop on*, pages 9–12. IEEE, 2013

12. **Oluwasanmi Koyejo**, Sreangsu Acharyya, and Joydeep Ghosh. Retargeted matrix factorization for collaborative filtering. In *Proceedings of the 7th ACM Conference on Recommender Systems*, RecSys '13, pages 49–56, New York, NY, USA, 2013. ACM

13. **Oluwasanmi Koyejo**, Cheng Lee, and Joydeep Ghosh. Constrained Gaussian process regression for gene-disease association. In *Data Mining Workshops (ICDMW), 2013 IEEE 13th International Conference on*, pages 72–79. IEEE, 2013

14. **Oluwasanmi Koyejo** and Russell A. Poldrack. Decoding cognitive processes from functional MRI. In *NIPS Workshop on Machine Learning and Interpretation in Neuroimaging*, 2013

15. Sreangsu Acharyya*, **Oluwasanmi Koyejo***, and Joydeep Ghosh. Learning to rank with Bregman divergences and monotone retargeting. In *Proceedings of the 28th conference on Uncertainty in Artificial Intelligence (UAI)*, 2012

16. **Oluwasanmi Koyejo** and Joydeep Ghosh. A kernel-based approach to exploiting interaction-networks in heterogeneous information sources for improved recommender systems. In *Proceedings of the 2nd International Workshop on Information Heterogeneity and Fusion in Recommender Systems*, HetRec '11, pages 9–16, New York, NY, USA, 2011. ACM

17. **Oluwasanmi Koyejo** and Joydeep Ghosh. MiPPS; a generative model for multi-manifold clustering. In *AAAI Fall Symposium on Manifold Learning and Its Applications*. AAAI Press, 2009

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*Equal Contribution.

Thesis

18. **Oluwasanmi Koyejo**. *Constrained relative entropy minimization with applications to multitask learning*. PhD thesis, The University of Texas at Austin, May 2013

Peer-reviewed workshop papers

19. Shalmali Joshi, **Oluwasanmi Koyejo**, and Joydeep Ghosh. Constrained inference for multi-view clustering. In *ICML Workshop on Divergence Methods for Probabilistic Inference*, 2014

20. **Oluwasanmi Koyejo**, Sreangsu Acharyya, and Joydeep Ghosh. Ratings re-specification for rank ordered recommendations. In *UAI workshop on New Challenges in E-Commerce Recommendations*, 2013

21. **Oluwasanmi Koyejo** and Joydeep Ghosh. A representation approach for relative entropy minimization with expectation constraints. In *ICML workshop on Divergences and Divergence Learning (WDDL)*, 2013

22. **Oluwasanmi Koyejo** and Jeff Andrews. Capacity gains of multi-user diversity in a cellular downlink interference-limited environment. In *GAIN 2007 student conference*, February 2007

Peer-reviewed abstracts

23. **Oluwasanmi Koyejo**, David Reese McKay, Emma E.M. Knowles, John Blangero, David Glahn, and Russell A. Poldrack. Exploratory analysis of imaging and behavioral phenotypes with sparse CCA. In *Organization for Human Brain Mapping (Abstract)*, 2014

24. Russell A. Poldrack, Timothy Laumann, Laurie Frick, **Oluwasanmi Koyejo**, Brenda Gregory, Ashleigh Hover, Mei-Yen Chen, Alex Huk, Sung Jun Joo, Evan Gordon, Avi Snyder, Babatunde Adeyemo, Daniel Handwerker, Jackson Liang, Ryan Boyd Zack Booth Simpson, Scott Hunicke-Smith, Thomas Caven, Edward Marcotte, Steven E. Petersen, and Jeanette A. Mumford. Extensive neurocognitive phenotyping of a single human: The MyConnectome project. In *Organization for Human Brain Mapping (Abstract)*, 2014

Academic magazine publications

25. **Oluwasanmi Koyejo**. Manifold learning and its applications: Reports of the AAAI 2010 fall symposia. *AI Magazine*, 32(1):93–100, 2011

26. Richard Souvenir and **Oluwasanmi Koyejo**. Manifold learning and its applications: Reports of the AAAI 2009 fall symposia. *AI Magazine*, 31(1):88–94, 2010

Preprints

27. Wesley Tansey, **Oluwasanmi Koyejo**, Russell A. Poldrack, and James G. Scott. False discovery rate smoothing. *arXiv:1411.6144*, 2014

28. **Oluwasanmi Koyejo**, Cheng Lee, and Joydeep Ghosh. The trace norm constrained matrix-variate Gaussian process for multitask bipartite ranking. *arXiv:1302.2576*, 2013

Teaching experience

Teaching Assistant, tutor

2008 - 2010	Senior design project	UT Austin
2008	Signals and systems	UT Austin
2007 - 2009	High school math	Austin partners in math (volunteer)
2006 - 2007	Senior design project	UT Austin
2004 - 2005	Signals and systems	New Jersey Institute of Technology
2002	Gear Up program	New Jersey Institute of Technology
2001	University learning center	New Jersey Institute of Technology

Awards & Honors

2014	Trainee award from the Organization for Human Brain Mapping (OHBM)
2013	Student paper award at the conference for Uncertainty in Artificial Intelligence (UAI)
2012	Travel award at the conference for Uncertainty in Artificial Intelligence (UAI)
2007	"Q" Award of excellence from Qualcomm
2006	"Q" Award of excellence from Qualcomm
2005	Outstanding NCE graduate award from NJIT
2005	Outstanding ECE graduate award from NJIT
2004 -	Phi Eta Sigma honors society
2004 -	Tau Beta Pi honors society
2004 -	Omicron Delta Kappa national leadership honors society
2003	Leadership award from NJIT
2001 - 2005	Albert Dorman honors college

Memberships and Affiliations

2014 -	Stanford Center for Mind, Brain and Computation
2013 -	Organization for Human Brain Mapping
2002 - 2013	Institute of Electrical and Electronics Engineers
2009 - 2011	Association for the Advancement of Artificial Intelligence

Professional Service

Program chair

2015	International workshop on Pattern Recognition in Neuroimaging (PRNI)
2014	ICML workshop on Divergence Methods for Probabilistic Inference (DMPI)
2010	AAAI symposium on Manifold learning and its applications
2005 - 2007	UT Austin GEC GAIN Conference

Ad-hoc peer review

Statistics and Computing, STAT, SIAM International Conference on Data Mining, ACM SIGKDD, Information Sciences, INFORMS Journal on Computing, International Conference on Information Systems

Reading group, seminar host, other leadership

2012	WNCG seminar (student host)
2012	Byteclub machine learning coding group
2009 - 2010	Gnofai machine learning reading group
2002 - 2003	NJIT Student Senate
2003 - 2005	NJIT ECE student advisory board

Industry Positions

05/2010 - 05/2011	Research intern	Adometry (Acquired by Google, 2014)
05/2007 - 08/2007	QCT systems intern	Qualcomm Inc.
05/2006 - 08/2006	WTBU intern	Texas Instruments
05/2005 - 08/2005	Product engineering intern	Texas Instruments
02/2003 - 08/2004	Operations service center intern	Ei^3 corporation
06/2003 - 08/2008	Energy resources and trade intern	PSEG

Presentations

Symposium talks, departmental lectures and conference presentations

10/2014	Biostatistics seminar at University of North Carolina
09/2014	Parietal team at INRIA, France
09/2014	European conference on Machine Learning (ECML), France
06/2014	"Unconference" at Organization for Human Brain Mapping
07/2013	Conference on Uncertainty in Artificial Intelligence
07/2013	Workshop on New challenges in e-commerce recommendations
06/2013	Workshop on Divergences and divergence learning
06/2013	Pattern Recognition in Neuroimaging
01/2013	Lawrence Livermore national lab
12/2012	Adometry, Austin, TX
11/2012	Apple Inc., Austin, TX
11/2011	International workshop on Information heterogeneity and fusion in recommender systems
11/2010	Workshop on Manifold learning and its applications
01/2001	Graduate and industry networking day (UT Austin)