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## Contact Information

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## Research Interests

Statistical Machine Learning, particularly representation learning via regularized dictionary learning; Optimization, particularly non-convex optimization; Reinforcement learning, particularly sparse coding for states.

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## Education

Sep.2013 Indiana University - Bloomington, IN, The United States  
-Present **PhD Student (PhD candidate from 2016):** School of Informatics, Computing and Engineering, Department of Computer Science, Major of Computer Science  
Sep.2010 Tongji University - Shanghai, China  
-Mar.2013 **Master of Management Science:** School of Economics and Management, Department of Management Science and Engineering, Major of Information Management and Information System  
Sep.2006 East China Normal University - Shanghai, China  
-Jun.2010 **Bachelor of Management Science:** School of Business, Department of Information Science, Major of Information Management and Information System

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## Teaching Experience

Spring 2015 Associate Instructor of **CSCI-B554: Probabilistic Approaches to Artificial Intelligence** at Indiana University Bloomington  
Fall 2014 Associate Instructor of **CSCI-B561: Advanced Database Concepts** at Indiana University Bloomington

Spring 2014 Associate Instructor of **CSCI-A110: Introduction to Computers and Computing** at Indiana University Bloomington  
& Fall 2013

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## Research Experience

August.2015- Research Assistant at Indiana University Bloomington, **Instructor:** Prof. White, Martha  
Present

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## Publications

Lei Le, Andrew Patterson, and Martha White. Effectively using dictionary learning to improve prediction accuracy, 2018. **Under review** from IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI).

Lei Le and Martha White. Identifying global optimality for dictionary learning, 2017. **Under review** from Journal of Machine Learning Research (JMLR).

Lei Le, Raksha Kumaraswamy, and Martha White. Learning sparse representations in reinforcement learning with sparse coding. In *Proceedings of the Twenty-Sixth International Joint Conference on Artificial Intelligence, IJCAI-17*, pages 2067–2073, 2017.

Lei Le and Martha White. Global optimization of regularized factor models using alternating minimization. In *33rd International Conference on Machine Learning (ICML 2016), Advances in Non-convex Analysis and Optimization Workshop*, New York City, NY, USA, June 2016.

Lei Le, Emilio Ferrara, and Alessandro Flammini. On predictability of rare events leveraging social media: A machine learning perspective. In *Proceedings of the 3rd ACM Conference on Online Social Networks (COSN'15)*, Palo Alto, CA, USA, November 2015.