## Lei Le

Contact Information Cubicle 3061W, Luddy Hall

700 N Woodlawn Ave http://leile26.github.io Bloomington, IN 47408 http://leile26.github.io

RESEARCH Interests Statistical Machine Learning, particularly representation learning via regularized dictionary learning; Optimization, particularly non-convex optimization over matrix factorization; Reinforcement learning, particularly sparse coding for states and policy learning for continuous actions

EDUCATION

Indiana University, Bloomington, IN, United States

Ph.D, Computer Science,

Aug 2013 to (Expected) May 2019

• Advisor: Martha White, Ph.D

• GPA: 3.98 / 4.0

• Ph.D minors: Statistical Sciences

Tongji University, Shanghai, China

Master of Management Science,

Information Management and Information System, Sep 2010 to Mar 2013

• GPA: 3.68 / 4.0

East China Normal University, Shanghai, China

Bachelor of Management Science,

Information Management and Information System, Sep 2006 to Jun 2010

• GPA: 3.75 / 4.0, rank: 1 / 48

Work Experience Software Engineering Intern for PhD

Google, New York City Office

Research and Machine Intelligence Group

Mentor: Ariel Kleiner, Ph.D

RESEARCH EXPERIENCE Research Assistant

Aug 2015 to Sep 2018

Sep 2018 to Dec 2018

Department of Computer Science, Indiana University Bloomington Supervisor: Martha White, Ph.D

TEACHING EXPERIENCE Associate Instructor

Spring 2015

CSCI-B554: Probabilistic Approaches to Artificial Intelligence at Indiana University

Bloomington
Associate Instructor

Fall 2014

CSCI-B561: Advanced Database Concepts at Indiana University Bloomington

Associate Instructor

Spring 2014 & Fall 2013

CSCI-A110: Introduction to Computers and Computing

Manuscripts

1. Lei Le, Ajin Joseph and Martha White. Global Optimization Geometry for Induced Matrix Factorization.

2. Lei Le and Martha White. Identifying Global Optimality for Dictionary Learning.

## Publications

- 1. Vincent Liu, Raksha Kumaraswam, **Lei Le**, and Martha White. The Utility of Sparse Representations for Control in Reinforcement Learning. (Accepted by AAAI 2019)
- 2. Lei Le, Andrew Patterson, and Martha White. Supervised autoencoders: Improving generalization performance with unsupervised regularizers. Advances in Neural Information Processing Systems (NeurIPS, the former NIPS), pages 107-117, 2018
- 3. 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
- 4. 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.

Presentations

1. Learning Sparse Representations for Reinforcement Learning. AI seminar at University of Alberta, March 29, 2018

SERVICES Reviewer for AAAI, ICML