Disi Ji

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Education

2017–2020 **Ph.D. in Computer Science**, University of California, Irvine, CA, USA.

- Research field: Machine Learning
- **Thesis:** "*Label-efficient Bayesian Evaluation of Blackbox Classifiers*," under supervision of Prof. Padhraic Smyth
- Thesis committee: Padhraic Smyth, Mark Steyvers, Stephan Mandt

2015–2016 **M.Sc. in Computer Science**, University of California, Irvine, CA, USA.

- Selected Coursework: Probabilistic Graphical Models, Statistical NLP, Deep Generative Models.

2011–2015 **B.Sc. in Mathematics**, Fudan University, Shanghai, China.

- **Thesis:** "*Structural Stability of Global Epidemics under Human Travel*," under supervision of Prof. Wei Lin
- Selected to National Top-notch Talent Program in Mathematics

2013 **Exchange student in Mathematics**, University of California, Santa Cruz, CA, USA.

Work Experiences

2021-Present **Research Scientist**, Facebook Inc. Menlo Park, CA, USA.

- Team: TBD
- Projects: TBD

2019.06-09 **Software Engineering Intern**, Facebook Inc. New York, NY, USA.

- Team: Place Visit Detection
- Project: Build machine learning models to detect places visited by users.

2018.06-09 **Software Engineering Intern**, Google Inc. Cambridge, MA, USA.

- Team: Google Flights(QPX)
- Project: Build ranking models for slice itineraries to accelerate itinerary search.

Recent Projects

- Human-machine collaboration for image annotation
- Reliable and label-efficient assessment of fairness with Bayesian methods
- Assessment of deep learning models with Bayesian active learning
- Automated diagnosis of Leukemia, with accuracy and interpretability on par with experts
- Cell-level cytometry data analysis with Bayesian trees

Selected Publications

- **Disi Ji**, Robert Logan, Padhraic Smyth, Mark Steyvers. Active Bayesian Assessment for Black-Box Classifiers. *The 35th AAAI Conference on Artificial Intelligence (AAAI)*, 2021. [Conference]
- **Disi Ji**, Padhraic Smyth, Mark Steyvers. Can I Trust My Fairness Metric? Assessing Fairness with Unlabeled Data and Bayesian Inference. *The 34th Conference on Neural Information Processing Systems (NeurIPS)*, 2020. [Conference]
- **Disi Ji**, Preston Putzel, Yu Qian, Richard H. Scheuermann, Jack D. Bui, Huan-You Wang, Padhraic Smyth. Optimization of Automated Gating for Clinical Diagnosis using Discriminative Gates. *Cytometry A*, 2019. [Journal]
- **Disi Ji**, Robert Logan, Padhraic Smyth, Mark Steyvers. Bayesian Evaluation of Black-Box Classifiers. *ICML Workshop on Uncertainty and Robustness in Deep Learning*, 2019. [Workshop, Spotlight talk]
- **Disi Ji**, Preston Putzel, Yu Qian, Richard H. Scheuermann, Jack D. Bui, Huan-You Wang, Padhraic Smyth. Learning Discriminative Gating Representations for Cytometry Data. *ICML Workshop on Computational Biology*, 2019. [Workshop]
- **Disi Ji**, Eric Nalisnick, Yu Qian, Richard Scheuermann, Padhraic Smyth. Bayesian Trees for Automated Cytometry Data Analysis. *In Proceedings of Machine Learning for Healthcare (MLHC)*, 2018. [Conference, Oral]
- **Disi Ji**, Eric Nalisnick, and Padhraic Smyth. Mondrian Processes for Flow Cytometry Analysis. *Machine Learning for Health, Workshop at NIPS*, 2017. [Workshop]

Teaching Experiences

2020 **TA**, Fundamentals of the Design and Analysis of Algorithms, University of California, Irvine, CA, USA.

2019 **TA**, Machine Learning, University of California, Irvine, CA, USA.

2019 **Instructor**, Deep learning with Python, Data Science Initiative Workshop, University of California, Irvine, CA, USA.

Academic service

2021 **Reviewer**, ICML.

2020 **PC member**, Uncertainty & Robustness in Deep Learning Workshop, ICML.

2020 **PC member**, Bayesian Deep Learning Workshop, NeurIPS.

Skills

- **Programming Languages**: Python, C++, Matlab, R, bash
- **Applications**: PyTorch, TensorFlow, Keras, LaTex, Git

References

Padhraic Smyth
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Department of Computer Science
Department of Statistics
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