

177 Huntington Ave Office 921 *E-mail:* roseyu@northeastern.edu
 Northeastern University *Phone:* (617) 373-6455
 Boston, MA 02115 USA *Homepage:* <http://roseyu.com>

PREPRINTS

- [P1] Rui Wang, Adrian Albert, Karthik Kashinath, Mustafa Mustafa, Rose Yu. "Towards physics informed deep learning for spatiotemporal modeling of turbulence flow". Preprint *arXiv:1911.08655*
- [P2] Rose Yu, Sung-En Chang, Xun Zheng, Ian E.H. Yen, Pradeep Ravikumar "Efficient Tensor Decomposition with Boolean Factors" Preprint *arXiv:1810.04754*
- [P3] Stephan Zheng, Rose Yu, Yisong Yue "Multi-resolution Tensor Learning for Large-Scale Spatial Data" Preprint *arXiv:1802.06825*
- [P4] Rose Yu, Stephan Zheng, Anima Anandkumar, Yisong Yue "Long-term Forecasting using Tensor-Train RNNs" Preprint *arXiv:1711.00073*
- [P5] Paroma Varma, Bryan He, Dan Iter, Peng Xu, Rose Yu, Christopher De Sa, Christopher Ré, "Socratic Learning", Preprint *arXiv:1610.08123*

CONFERENCE
PUBLICATIONS

- [C1] Nima Dehmamy, Albert-László Barabási, Rose Yu. "Understanding the Representation Power of Graph Neural Networks in Learning Graph Topology" To appear in *Proceeding of Advances in Neural Information Processing Systems* (NeurIPS), 2019
- [C2] Yukai Liu, Rose Yu, Stephan Zheng, Eric Zhan, Yisong Yue. "NAOMI: Non-Autoregressive Multiresolution Sequence Imputation" To appear in *Proceeding of Advances in Neural Information Processing Systems* (NeurIPS), 2019
- [C3] Guanya Shi, Xichen Shi, Michael O'Connell, Rose Yu, Kamyar Azizzadenesheli, Anima Anandkumar, Yisong Yue, Soon-Jo Chung "Neural Lander: Stable Drone Landing Control using Learned Dynamics" In *Proceedings of International Conference on Robotics and Automation* (ICRA), 2019
- [C4] Yaguang Li, Rose Yu, Cyrus Shahabi, Yan Liu "Diffusion Convolutional Recurrent Neural Network: Data-Driven Traffic Forecasting" In *Proceedings of International Conference on Learning Representations* (ICLR), 2018
- [C5] Rose Yu, Guangyu Li, Yan Liu. "Tensor regression meets Gaussian Processes." In *Proceedings of International Conference on Artificial Intelligence and Statistics* (AISTATS), 2018
- [C6] Rose Yu, Yaguang Li, Ugur Demiryurek, Cyrus Shahabi, Yan Liu. "Deep Learning: A Generic Approach for Extreme Condition Traffic Forecasting." In *Proceedings of the Seventeenth SIAM International Conference on Data Mining* (SDM), 2017
- [C7] Rose Yu, Yan Liu. "Learning from Multiway Data: Simple and Efficient Tensor Regression." In *Proceedings of the 33th International Conference on Machine Learning* (ICML), 2016
- [C8] Dingxiong Deng, Cyrus Shahabi, Ugur Demiryurek, Linhong Zhu, Rose Yu, Yan Liu, "Latent Space Model for Road Networks to Predict Time-Varying Traffic", In *Proceeding of ACM SIGKDD Conference on Knowledge Discovery and Data Mining* (KDD), 2016
- [C9] Rose Yu, Andrew Gelfand, Suju Rajan, Cyrus Shahabi, Yan Liu. "Geographic Segmentation via Latent Poisson Factor Model." in *ACM International Conference on Web Search and Data Mining* (WSDM), 2016
- [C10] Rose Yu, Dehua Cheng, Yan Liu. "Accelerated Online Low Rank Tensor Learning for Multivariate Spatiotemporal Streams." In *Proceedings of the 32th International Conference on Machine Learning* (ICML), 2015

- [C11] Rose Yu, Mohammad Taha Bahadori, Yan Liu. "Fast Multivariate Spatio-temporal Analysis via Low Rank Tensor Learning." In *Proceeding of Advances in Neural Information Processing Systems* (NIPS), 2014 **Spotlight**
- [C12] Rose Yu, Xinran He, Yan Liu. "GLAD: Group Anomaly Detection in Social Media Analysis." In *Proceeding of ACM SIGKDD Conference on Knowledge Discovery and Data Mining* (KDD), 2014
- [C13] Cuixia Gao, Naiyan Wang, Qi Yu, Zhihua Zhang. "A Feasible Nonconvex Relaxation Approach to Feature Selection." In *Proceeding of 24th AAAI conference on Artificial Intelligence* (AAAI), 2011
- [C14] Qi Yu, Zhihao Ding, Rong Rong, Wang Donghui, Zhengyue Zhang. "Dark Pixel Detection: A Novel Single Image Dehaze Approach". In *Proceeding of 27th Image and Vision Computing New Zealand* (IVCNZ), 2011

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PUBLICATIONS

- [J1] Rose Yu, Yan Liu. "Spatio-Temporal Analysis of Social Media Data" In *Encyclopedia of GIS*, 2016
- [J2] Rose Yu, Huida Qiu, Zhen Wen, Ching-Yung Liu, Yan Liu. "A Survey on Social Media Analysis Anomaly Detection" In *ACM KDD Exploration*, 2016
- [J3] Rose Yu, Xinran He, Yan Liu. "GLAD: Group Anomaly Detection in Social Media Analysis - Extended Abstract." In *ACM Transactions on Knowledge Discovery in Data* (TKDD), 2015

SELECTED
WORKSHOP PAPERS
(UNREFEREED)

- [W1] Rui Wang, Adrian Albert, Karthik Kashinath, Mustafa Mustafa, Rose Yu. "Towards physics informed deep learning for spatiotemporal modeling of turbulence flow". **Oral Presentation** at *Advances in Neural Information Processing Systems* (NeurIPS), Machine Learning for Physical Sciences workshop, 2019
- [W2] Clara De Paolis, Saeed Amizadeh, Rose Yu. "A Neural Framework for Learning DAG to DAG Translation ". In *Advances in Neural Information Processing Systems* (NeurIPS), relational representation learning workshop, 2018
- [W3] Rose Yu, Stephan Zheng, Anima Anandkumar, Yisong Yue. "Long-term forecasting using Tensor-Train RNN". **Best Paper Award** in *Advances in Neural Information Processing Systems* (NIPS), time series workshop, 2017
- [W4] Yaguang Li, Rose Yu, Cyrus Shahabi, Yan Liu. "Diffusion Convolutional Recurrent Neural Network: Data-Driven Traffic Forecasting". **Oral Presentation** at *Advances in Neural Information Processing Systems* (NIPS), time series workshop, 2017
- [W5] Rose Yu, Stephan Zheng. "Learning Chaotic Dynamics with Tensor RNN". In *International Conference on Machine Learning* (ICML), Deep structured prediction workshop, 2017
- [W6] Rose Yu, Paroma Varma, Dan Iter, Chris De Sa, Christopher Re, "Socratic Learning". In *Advances in Neural Information Processing Systems* (NIPS) future of interactive machine learning workshop, 2016
- [W7] Rose Yu, Yan Liu. "Simple and Efficient Tensor Regression for Spatio-Temporal Forecasting." Poster accepted to *International Workshop on Climate Informatics workshop* (CI), 2016
- [W8] Rose Yu, Dehua Cheng, Yan Liu. "Accelerated Online Low-Rank Tensor Learning for Multi-model Ensemble." Poster accepted to *International Workshop on Climate Informatics workshop* (CI), 2015
- [W9] Mohammad Taha Bahadori, Rose Yu, Yan Liu. "Fast Cokriging via Low Rank Tensor Learning." Poster accepted to *International Workshop on Climate Informatics workshop* (CI), 2014