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RESEARCH	Large-Scale Spatiotemporal Learning, Deep Learning, Tensor Methods, and their applications.	
CURRENT APPOINTMENT	University of California, San Diego , La Jolla, California <i>Assistant Professor, Department of Computer Science and Engineering, Halicioğlu Data Science Institute</i>	July 2020 - Present
PREVIOUS APPOINTMENT	Northeastern University , Boston, Massachusetts <i>Assistant Professor, Khoury College of Computer Sciences Network Science Institute, College of Engineering, Physics (By Courtesy)</i>	Aug 2018 - June 2020
	California Institute of Technology , Pasadena, California <i>Postdoctoral Scholar, Computing + Mathematical Sciences</i> <ul style="list-style-type: none">• Advisors: Anima Anandkumar, Yisong Yue	Aug 2017 - Aug 2018
EDUCATION	University of Southern California , Los Angeles, California <i>Ph.D., Computer Science, Computer Science Department</i> <i>Thesis: Tensor Learning for Large-Scale Spatiotemporal Analysis</i> <i>Finalist in William F. Ballhaus, Jr. Prize for Excellence in Graduate Engineering Research</i>	Aug 2012 - Aug 2017
	Zhejiang University , Hangzhou, Zhejiang, PRC <i>B.S in Computer Science, Chu Kochen Honors College</i>	Aug 2008 - June 2012
SELECTED AWARDS AND HONORS	Outstanding Faculty Researcher Award , JPMorgan, July 2021 Facebook Data Science Research Awards , Facebook Research, June 2021 AWS Machine Learning Research Awards , Amazon Science, 2020 Adobe Data Science Research Awards , Adobe Research, 2020 Google Faculty Research Award , Google Research, 2019-2020 Best Paper Award , NeurIPS Machine Learning for Public Health Workshop, 2020 Best Dissertation Award , University of Southern California, 2018 Best Paper Award , NeurIPS Time Series Workshop, 2017 Selected in ACM Heidelberg Laureate Forum , University of Heidelberg, 2013 Microsoft 2011 Young Fellowship , Microsoft Research Asia, 2011 International Forum (iF) Design Hanover Global Concept Award , iF, 2010	

- [C1] Dongxia Wu, Liyao Gao, Xinyue Xiong, Matteo Chinazzi, Alessandro Vespignani, Yi-An Ma, Rose Yu. "Quantifying Uncertainty in Deep Spatiotemporal Forecasting" To appear in *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2021
- [C2] Rui Wang, Danielle Maddix, Christos Faloutsos, Yuyang Wang, Rose Yu. "Bridging Physics-based and Data-driven modeling for Learning Dynamical Systems", In Proceeding of *Annual Conference on Learning for Dynamics and Control (L4DC)*, 2021
- [C3] Robin Walters, Jinxi (Leo) Li, Rose Yu "Trajectory Prediction using Equivariant Continuous Convolution", In *International Conference on Learning Representations (ICLR)*, 2021
- [C4] Rui Wang, Robin Walters, Rose Yu "Incorporating Symmetry into Deep Dynamics Models for Improved Generalization", In *International Conference on Learning Representations*, 2021
- [C5] Fan Xie, Alex Chowdhury, Clara De Paolis, Linfeng Zhao, Lawson Wong, Rose Yu "Deep Imitation Learning for Bimanual Robotic Manipulation" In Proceeding of *Advances in Neural Information Processing Systems (NeurIPS)*, 2020
- [C6] Armand Comas Massague, Chi Zhang, Zlatan Feric, Octavia Camps, Rose Yu "Learning Disentangled Representations of Video with Missing Data" In Proceeding of *Advances in Neural Information Processing Systems (NeurIPS)*, 2020
- [C7] Chintan Shah, Nima Dehmamy, Nicola Perra, Matteo Chinazzi, Albert-László Barabási, Alessandro Vespignani, Rose Yu "Finding Patient Zero: Learning Contagion Source with Graph Neural Networks" In *International Conference on Network Science (NetSci)*, 2020.
- [C8] Csaba Both, Nima Dehmamy, Albert-László Barabási, Rose Yu "Network Layout using Graph Neural Networks" In *International Conference on Network Science (NetSci)*, 2020.
- [C9] Jung Yeon Park, Kenneth Theo Carr, Stephan Zheng, Yisong Yue, Rose Yu "Multiresolution Tensor Learning for Efficient and Interpretable Spatial Analysis" In *Proceedings of the 32th International Conference on Machine Learning (ICML)*, 2020
- [C10] Rui Wang, Adrian Albert, Karthik, Kashinath, Mustafa, Mustafa, Rose Yu. "Towards Physics-informed Deep Learning for Spatiotemporal Modeling of Turbulent Flows", In Proceeding of *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2020
- [C11] Eliza Huang, Rui Wang, Uma Chandrasekaran, Rose Yu. "Aortic Pressure Forecasting with Deep Sequence Learning", In Proceeding of *Computing in Cardiology (CinC)*, 2020
- [C12] Nima Dehmamy, Albert-László Barabási, Rose Yu. "Understanding the Representation Power of Graph Neural Networks in Learning Graph Topology" In Proceeding of *Advances in Neural Information Processing Systems (NeurIPS)*, 2019
- [C13] Yukai Liu, Rose Yu, Stephan Zheng, Eric Zhan, Yisong Yue. "NAOMI: Non-Autoregressive Multiresolution Sequence Imputation" In Proceeding of *Advances in Neural Information Processing Systems (NeurIPS)*, 2019
- [C14] 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
- [C15] 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
- [C16] Rose Yu, Guangyu Li, Yan Liu. "Tensor regression meets Gaussian Processes." In *Proceedings of International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2018
- [C17] 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

- [C18] Rose Yu, Yan Liu. "Learning from Multiway Data: Simple and Efficient Tensor Regression." In Proceedings of *International Conference on Machine Learning (ICML)*, 2016
- [C19] 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
- [C20] 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
- [C21] Rose Yu, Dehua Cheng, Yan Liu. "Accelerated Online Low Rank Tensor Learning for Multivariate Spatiotemporal Streams." In Proceedings of *International Conference on Machine Learning (ICML)*, 2015
- [C22] 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**
- [C23] 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*, 2014

JOURNAL PUBLICATIONS

- [J1] K. Kashinath, M. Mustafa, A. Albert, J-L. Wu, C. Jiang, S. Esmailzadeh, K. Azizzadenesheli, R. Wang, A. Singh, A. Manepalli, D. Chirila, R. Yu, R. Walters, B. White, H. Xiao, H. A. Tchelepi, P. Marcus, A. Anandkumar, Prabhat. "Physics-informed machine learning: Case studies for weather and climate modelling" In *Journal of Philosophical Transactions of the Royal Society A*, 2020
- [J2] Rose Yu, Stephan Zheng, Anima Anandkumar, Yisong Yue. "Long Term Forecasting with Higher Order Tensor RNN". In *Journal of Machine Learning Research (JMLR)*, 2018
- [J3] Rose Yu, Huida Qiu, Zhen Wen, Ching-Yung Liu, Yan Liu. "A Survey on Social Media Analysis Anomaly Detection" In *ACM KDD Exploration*, 2016
- [J4] 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

TEACHING

Deep Generative Models (CSE 291(G00))	Fall 2020
Advanced Machine Learning (CS 7140)	Spring 2020
Machine Learning Seminar (CS 4950/3950)	Fall 2019
Special Topics in AI: Deep Learning (CS 7180)	Spring 2019
Machine Learning (CS 6140)	Fall 2018

ACADEMIC SERVICE **Conference Organizing Committee**

Poster Chair, KDD (2020)
 Proceedings Chair, SIGSPATIAL (2020)
 KITP: At the Crossroad of Physics and Machine Learning, 2019

Senior Program Committee (or Area Chair)

ICML(2021, 2020), ICLR (2022, 2021), NeurIPS (2021, 2020), AAAI (2020, 2021), IJCAI (2020), SDM (2020)