

# Jianpeng Xu<sup>1</sup>

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Cupertino, CA, 95014

## EDUCATION

**Ph.d Degree**, Computer Science and Engineering, Michigan State University (MSU)  
Fall 2011 - Summer 2017 **Advisor**: Pang-Ning Tan  
**M.S Degree**, Computer Science, Harbin Institute of Technology (HIT), China  
Fall 2007 - Spring 2010  
**B.S Degree**, Computer Science, Shandong University (SDU), China  
Fall 2003 - Spring 2007

## WORK EXPERIENCE

<b>Senior Manager II, Data Science</b>	Walmart Global Tech Sunnyvale, CA	Sep 2023-present
Personalization and Recommendation, Large Language Models		
<b>Principal Data Scientist</b>	Walmart Global Tech Sunnyvale, CA	May 2023-Aug 2023
Item Page Recommendation, Personalization		
<b>Staff Data Scientist</b>	Walmart Global Tech Sunnyvale, CA	Dec 2020-Apr 2023
Item Page Recommendation, Learning to Rank, Personalization		
<b>Senior Data Scientist</b>	WalmartLabs, Walmart Global Tech Sunnyvale, CA	Nov 2018-Dec 2020
Similar Item Recommendation, Deep Learning Recommendation models, Realtime Inferencing		
<b>Senior Data Scientist</b>	eBay, Inc San Jose, CA	Aug 2016-Nov 2018
Deals Subsidy and Optimization, Information Retrieval, Anomaly Detection		
<b>Research Assistant</b>	MSU East Lansing, MI	Fall 2013- Spring 2016
Geospatio-temporal Data Mining, Multi-task Learning, Personalized medical modeling		
<b>Intern Data Scientist</b>	Samsung Research America San Jose, CA	Spring, Summer 2015
Recommendation system for Samsung Smart TV.		
<b>Intern Data Scientist</b>	Samsung Research America San Jose, CA	Summer 2014
Analysis on user behavior and user demographics using smart TV watching history.		
<b>Teaching Assistant</b>	MSU East Lansing, MI	Spring 2013
Teaching Assistant for Large-Scale Data Analysis (CSE491/891), including Hadoop, Pig, Hive, Mahout, and AWS.		
<b>Intern Software Engineer</b>	Narus Inc Sunnyvale, CA	Summers 2012
Malicious endpoints detection		
<b>Research Assistant</b>	MSU East Lansing, MI	Fall 2011-Fall 2012
Land cover and land use change detection using MODIS data.		

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<sup>1</sup>CV updated on September 6, 2023.

## SELECTED PUBLICATIONS

- Reza Yousefi Maragheh, Ramin Giahi, **Jianpeng Xu**, Lalitesh Morishetti, Shanu Vashishtha, Kaushiki Nag, Jason Cho, Evren Korpeoglu, Sushant Kumar, Kannan Achan, Prospect-Net: Top-K Retrieval Problem Using Prospect Theory. IEEE BigData 2022
- Luyi Ma, **Jianpeng Xu**, Jason H.D. Cho, Evren Korpeoglu, Sushant Kumar, and Kannan Achan, NEAT: A Label Noise-resistant Complementary Item Recommender System with Trustworthy Evaluation. IEEE BigData 2021
- Yao Zhou, **Jianpeng Xu**, Jun Wu, Zeinab Taghavi, Evren Korpeoglu, Kannan Achan, Jingrui He. PURE: Positive-Unlabeled Recommendation with Generative Adversarial Network. KDD 2021
- **Jianpeng Xu**, Jiayu Zhou, Pang-Ning Tan, Xi Liu, Lifeng Luo. Spatio-temporal Multi-task Learning via Tensor Decomposition. IEEE Transactions on Knowledge and Data Engineering (TKDE), 2019
- **Jianpeng Xu**, Xi Liu, Tyler Wilson, Pang-Ning Tan, Pouyan Hatami, Lifeng Luo. MUSCAT: Multi-Scale Spatio-Temporal Learning with Application to Climate Modeling, IJCAI 2018
- **Jianpeng Xu**. Multi-Task Learning and Its Application to Geospatio-Temporal Data. Ph.D Dissertation, Michigan State University, 2017
- **Jianpeng Xu**, Pang-Ning Tan, Jiayu Zhou, Lifeng Luo. Online Multi-task Learning Framework for Ensemble Forecasting. IEEE Transactions on Knowledge and Data Engineering (TKDE), 2017
- **Jianpeng Xu**, Jiayu Zhou, Pang-Ning Tan, Xi Liu, Lifeng Luo. WISDOM: Weighted Incremental Spatio-Temporal Multi-Task Learning via Tensor Decomposition. IEEE BigData 2016 (Best Paper Award)
- Kaixiang Lin, **Jianpeng Xu**, Shuiwang Ji, Jiayu Zhou. Multi-Task Feature Interaction Learning. KDD 2016
- **Jianpeng Xu**, Kaixiang Lin, Pang-Ning Tan and Jiayu Zhou. Synergies that Matter: Efficient Interaction Selection via Sparse Factorization Machine. SDM 2016
- **Jianpeng Xu**, Pang-Ning Tan, Lifeng Luo and Jiayu Zhou. GSpartan: a Geospatio-Temporal Multi-task Learning Framework for Multi-location Prediction. SDM 2016
- **Jianpeng Xu**, Jiayu Zhou and Pang-Ning Tan. Formula: FactORIZED MULTI-task LeARNING for task discovery in personalized medical models. SDM 2015
- **Jianpeng Xu**, Pang-Ning Tan and Lifeng Luo. ORION: Online Regularized multi-task regression and its application to ensemble forecasting. ICDM 2014
- **Jianpeng Xu** and Shufan Ji. HDminer: Efficient Mining of High Dimensional Frequent Closed Patterns from Dense Data and Its Application. ICDM 2014 workshop on Scalable Data Analytics: Theory and Applications
- Lei Liu, Sabyasachi Saha, Ruben Torres, **Jianpeng Xu**, Pang-Ning Tan, Antonio Nucci, Marco Mellia, Detecting Malicious Clients in ISP Networks Using HTTP Connectivity Graph and Flow Information, ASONAM 2014

## PATENT

- Da Xu, **Jianpeng Xu**, Sushant Kumar, Evren Korpeoglu, Kannan Achan, Systems and methods for recommendation system analysis, 17581635, 2023
- Venugopal Mani, **Jianpeng Xu**, Hyun Duk Cho, Sushant Kumar, Kannan Achan, Aysenur Inan, Systems and methods using deep joint variational autoencoders, 17589229, 2023
- Habibur Rahman, Sriram Guna Sekhar Kollipara, Zeinab TAGHAVI NASR ABADI, **Jianpeng Xu**, Item-to-item recommendations, 11556966, 2023
- Zeinab TAGHAVI NASR ABADI, Habibur Rahman, Najmeh FOROUZANDEHMEHR, Xilun Chen, **Jianpeng Xu**, Anant MAHESHWARI, Sriram Guna Sekhar KOLLIPARA, Methods and apparatus for electronically providing item recommendations for advertisement, 11455655, 2022

- Behzad Shahrabi, Sriram Guna Sekhar Kollipara, **Jianpeng Xu**, Evren Korpeoglu, Kannan Achan, Similar item recommendation framework using wide-and-deep-architecture, 17589855, 2022
- Sabyasachi Saha, Lei Liu, Ruben Torres, **Jianpeng Xu**, Antonio Nucci, Detecting Malicious Endpoints Using Network Connectivity and Flow Information, US8813236 B1, Aug 19, 2014

## HONORS AND AWARDS

**Best Paper Award** from IEEE BigData 2016

**Best Poster Award** from Doctoral Forum, SDM 2016

Student Travel Award from SDM 2016, SDM 2015, ICDM 2014, IEEE BigData 2016

Student Travel Award, MSU Graduate School, 2014

Graduate Assistant Support from Michigan State University, Fall 2011- Spring 2016

Honorable mentioned in Mathematical Contest in Modeling (MCM), 2006

## SERVICES

- **Topic Editor** for Research Topic on Industrial Recommender Systems, Journal of Frontiers in Big Data
- **Co-Organizer** for Industrial Recommender System (IRS) workshop with KDD2020, KDD2021
- **Co-Organizer** for ICML 2021 Workshop on Representation Learning for Finance and e-Commerce Applications.
- **Co-Organizer** for Workshop on Decision Making for Modern Information Retrieval System (WSDM'22)
- **Program Committee Member** for KDD, AAAI, IJCAI, IEEE BigData, PAKDD, BIBM, MLRec(in conjunction with SDM), BigTraffic(in conjunction with SDM) in multiple years
- **Invited Journal Reviewer** for TKDE, TKDD, Neurocomputing, BMC Bioinformatics, TNNLS, Pattern Recognition, EURASIP