

YUSAN LIN

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EDUCATION

- The Pennsylvania State University** August 2012 - December 2018
Ph.D. in Computer Science and Engineering
Dissertation: “Machine-Learning-Based Approaches for Learning Marketing Strategies”
- National Central University** August 2008 - June 2012
B.S. Computer Science and Information Engineering
Presidential Award (top 3 students)

WORK EXPERIENCE

- Amazon Fashion** January 2022 - Present
Applied Scientist Sunnyvale, CA
- Visa Research** December 2018 - December 2021
Artificial Intelligence Research Scientist and Tech Lead Palo Alto, CA
- Leading the Anomaly Detection Platform team, developed and deployed unsupervised anomaly detection solutions, including change point detection and feature weighting pipeline for multivariate time series, and ensemble forecasting-based settlement file anomaly detection
 - Led the Security Analytics team, developed and random-forest-based employee attrition prediction model and graph-based abnormal activity detection model
 - Developed fashion recommendation system using deep learning models
 - Published four full research paper (TheWebConf 2020, SIGIR 2021, RecSys 2021 and BigData 2021) and one workshop paper (KDD 2019)
 - Filed twelve provisional and non-provisional patents
- Visa Research** Feb 2018 - May 2018
Research Scientist Intern Palo Alto, CA
- Developed fashion outfit recommendation system, which led to one provisional patent and one workshop publication (CVPR 2019)

SELECTED PUBLICATION

- Bo Dong, Yuhang Wu, Michael Yeh, **Yusan Lin**, Yuzhong Chen, Hao Yang, Fei Wang, Wanxin Bai, Krupa Brahmksri, Zhang Yimin, Chinna Kummitha and Verma Abhisar, *Semi-supervised Context Discovery for Peer-Based Anomaly Detection in Multi-Layer Networks*, The 24th International Conference on Information and Communications Security (ICICS 22), Canterbury, United Kingdom, Sep. 2022 (to appear)
- Maryam Moosaei, **Yusan Lin**, Ablaihan Akhazhanov, Huiyuan Chen, Fei Wang and Hao Yang, *OutfitGAN: Learning Compatible Items for Generative Fashion Outfits*, The 5th Workshop on Computer Vision for Fashion, Art, and Design (CVPR 22), New Orleans, LA, United States, Jun. 2022 (to appear)
- Lan Wang, Huiyuan Chen, Yuhang Wu, **Yusan Lin**, Fei Wang and Hao Yang, *Forecasting-based Multi-aspect Framework for Multivariate Time-series Anomaly Detection*, IEEE International Conference on Big Data (IEEE Big Data 2021), Virtual, Dec. 2021

- Huiyuan Chen, **Yusan Lin**, Fei Wang and Hao Yang, *Tops, Bottoms, and Shoes: Building Capsule Wardrobes via Cross-Attention Tensor Network*, 15th ACM Conference on Recommender Systems (RecSys 21), Amsterdam, Netherlands, Sep. 2021
- Huiyuan Chen, Lan Wang, **Yusan Lin**, Michael Yeh, Fei Wang and Hao Yang, *Structured Graph Convolutional Networks with Stochastic Masks for Recommender Systems*, International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 21), online, Jul. 2021
- **Yusan Lin**, Peifeng Yin, Wang-Chien Lee, *Economic Worth-Aware Word Embeddings*, IEEE International Conference on Data Science and Advanced Analytics (DSAA 20), Sydney, Australia, Oct. 2020
- **Yusan Lin**, Maryam Moosaei, Hao Yang, *OutfitNet: Fashion Outfit Recommendation with Attention-Based Multiple Instance Learning*, IW3C2 The Web Conference (TheWebConf 20), Taipei, Taiwan, Apr. 2020
- **Yusan Lin**, Hao Yang, *Next-Season Design Prediction on High-Fashion Runway*, ACM SIGKDD Workshop on AI for Fashion (KDD 19), Anchorage, AK, United States, Aug. 2019
- **Yusan Lin**, Maryam Moosaei, Hao Yang, *Learning Personal Tastes in Choosing Fashion Outfits*, Understanding Subjective Attributes of Data: Focus on Fashion and Subjective Search workshop (CVPR 19), Long Beach, CA, United States, Jun. 2019
- **Yusan Lin**, Peifeng Yin, Wang-Chien Lee, *Modeling Dynamic Market Competition on Crowdfunding*, IW3C2 The Web Conference (WWW 18), Lyon, France, Apr. 2018
- **Yusan Lin**, Peifeng Yin, Wang-Chien Lee, *Modeling Menu Bundle Designs of Crowdfunding Projects*, ACM Conference on Information and Knowledge Management (CIKM 17), Singapore, Nov. 2017
- **Yusan Lin**, Tawei Wang, *Dress Up Like a Stylist? Learning from A User-Generated Fashion Network*, 20th ACM SIGKDD Workshop on Machine Learning Meets Fashion (KDD 17), Halifax, Canada, Aug. 2017
- Jorge Alé Chilet, Cuicui Chen, **Yusan Lin**, *Analyzing Social Media Marketing in the High-End Fashion Industry Using Named Entity Recognition*, IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM 16), San Francisco, CA, Aug. 2016
- **Yusan Lin**, Chung-Chou H. Chang, Wang-Chien Lee, *Analyzing Social Media Marketing in the High-End Fashion Industry Using Named Entity Recognition*, IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM 16), San Francisco, CA, Aug. 2016
- **Yusan Lin**, Heng Xu, Yilu Zhou, Wang-Chien Lee, *Styles in the Fashion Social Network: An Analysis on Lookbook.nu*, International Social Computing, Behavioral Modeling and Prediction Conference (SBP15), 2015
- **Yusan Lin**, Yilu Zhou, Heng Xu, *Text-Generated Fashion Influence Model: An Empirical Study on Style.com*, Hawaii International Conference on System Sciences (HICSS 15), Kauai, HI, Jan. 2015
- **Yusan Lin**, Yilu Zhou, Heng Xu, *The Hidden Influence Network in the Fashion Industry*, Workshop on Information Technologies and Systems (WITS 14), Auckland, New Zealand, Nov. 2014

TEACHING EXPERIENCE

Instructor
CMPS431 W Introduction to Database Management Systems

Aug 2015 - Dec 2016

YouTube channel:

https://www.youtube.com/channel/UCjkGzGfgvX_Zd8kxs4ldhFw

University Park, PA

- Senior-level course with 70 students enrolled on average
- Received 6.7/7 on the students' evaluations
- Awarded with graduate student teaching award

INTERVIEWS AND INVITED TALKS

Fashion Predictions <i>Data Skeptic Podcast</i>	2021
Application of Artificial Intelligence in the Fashion Industry <i>Z-Combinator, Taiwan</i>	2021
Artificial Intelligence in Fashion <i>Keynote, Fashion Technology Week New York, New York</i>	2018
Fashion Meets Data Science <i>Fashion Technology Week New York, Microsoft Flagship Store, New York</i>	2017
Meet the Fashion Data Analyst Working to Predict the Next Big Trend <i>Teen Vogue, Issue: December</i>	2016
Measuring the Influence of Fashion Designers <i>Data Skeptic Podcast, Episode 68</i>	2015

AWARDS

Information & Intelligent Systems Research Grant <i>National Science Foundation, with Wang-Chien Lee (Pennsylvania State University)</i>	2017
University Research Council Competitive Research Grant <i>Kellstadt Graduate School of Business, DePaul University, with Ta-Wei Wang (DePaul University)</i>	2017
Research Grant <i>The Institute for Quantitative Social Science (IQSS), Harvard University, with Cuicui Chen (Harvard University), Jorge Alé Chilet (Hebrew University)</i>	2016
Graduate Student Teaching Award <i>Department of Computer Science and Engineering, Penn State University, one awardee per year</i>	2016

SERVICE

DSAA Research Track, Program Chair	2021
DASFAA Technical Program Committee	2021
DSAA Research Track, Program Chair	2020
KDD AI for Fashion, Program Chair	2019
CIKM Applied Research Track, Program Chair	2019