

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

- Visa Research** December 2018 - Present
Staff Research Scientist and Technical Team Lead Palo Alto, CA
- Developed fashion recommendation system using deep learning models
 - Published two workshop papers in CVPR 2019 and KDD 2019
 - Published one full research paper in The WebConf 2020 (WWW 2020)
 - Filed two provisional patents:
System, Method, and Computer Program Product for a Set of Items to a User (Ref. number: 3689US01)
Methods and Systems For Peer Grouping in Insider Threat Detection (Ref. number: 4113US01)
 - Led the Security Analytics team, developed and deployed employee attrition prediction model and peer grouping detection model
- Visa Research** Feb 2018 - May 2018
Research Scientist Intern Palo Alto, CA
- Filed one provisional patent: *System, Method, and Computer Program Product for Predicting User Preference of Items in an Image* (Ref. number: 2957US01)

PUBLICATION

- **Yusan Lin**, Maryam Moosaei, Hao Yang, *OutfitNet: Fashion Outfit Recommendation with Attention-Based Multiple Instance Learning*, IW3C2 The Web Conference (WWW 20), Taipei, Taiwan, Apr. 2020 (to appear)
- **Yusan Lin**, Hao Yang, *Next-Season Design Prediction on High-Fashion Runway*, 22th ACM SIGKDD Workshop on AI for Fashion (KDD 19), 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), 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

RESEARCH EXPERIENCE

Dissertation Research

Machine-Learning-Based Approaches for Learning Marketing Strategies

Adviser: Wang-Chien Lee

- Predicted crowdfunding project success by extracting implicit reward features, outperforming state-of-the-arts by 18.73%
- Developed menu bundle generator by using probabilistic generative models, outperforming LDA by 29.3% in accuracy when predicting menu formulation
- Proposed dynamic market competition predictor by using probabilistic generative models
- Worked with adviser to earn support by a competitive NSF Information & Intelligent Systems research grant (NSF IIS-1717084 Learning Latent Representations of Heterogeneous Information Networks)

Related Research

Modeling Fashion

Collaborators: Cuicui Chen (Harvard University) & Jorge Alé Chilet (Hebrew University)

- Detected the innovation and influence in the fashion industry using NLP and econometrics on data from social networks, runway reviews, and retail websites across a two-year period
- Funded by IQSS at Harvard University

Competitions on Fashion Social Network

Collaborator: Ta-Wei Wang (DePaul University)

- Created dataset of 120K user-generated fashion outfits for research use
- Designed classifier predicting whether given users will adopt certain brands in outfits using user demographics and network structure, reaching 96.54% in accuracy
- Funded by Research Grant, Kellstadt Graduate School of Business, DePaul University

AWARDS

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

PATENTS

- Methods and Systems For Peer Grouping in Insider Threat Detection** 2020
Reference number: 4113US01
- System, Method, and Computer Program Product for a Set of Items to a User** 2019
Reference number: 3689US01
- System, Method, and Computer Program Product for Predicting User Preference of Items in an Image** 2018
Reference number: 2957US01

TEACHING EXPERIENCE

- Instructor** Aug 2015 - Dec 2016
CMPSC431 W Introduction to Database Management Systems
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

- Artificial Intelligence in Fashion** 2018
Keynote, Fashion Technology Week New York, New York
- Fashion Meets Data Science** 2017
Fashion Technology Week New York, Microsoft Flagship Store, New York
- Meet the Fashion Data Analyst Working to Predict the Next Big Trend** 2016
Teen Vogue, Issue: December
- Measuring the Influence of Fashion Designers** 2015
Data Skeptic Podcast, Episode 68

SERVICE

- KDD AI for Fashion, Program Chair** 2019
- CIKM Applied Research Track, Program Chair** 2019