Jingshuo Feng

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Education

University of Washington Sep. 2017 - June 2021
Ph.D., Industrial and Systems Engineering. Advisor: Dr. Shuai Huang *Seattle, WA*

- Dissertation: Modeling Heterogeneous User Behavior in Interactive Systems by Graphical Model and Collaborative Learning Framework

University of Washington Sep. 2017 - June 2019
Master of Science in Industrial Engineering *Seattle, WA*

Renmin University of China Sep. 2013 - June 2017
Bachelor of Science in Applied Statistics *Beijing, China*
Bachelor of Economics in Economic Statistics | Minor
Bachelor of Art in Advertising | Minor

Work Experience

Kuaishou Technology *Research Intern in AI Platform* Mar. 2020 – Sep. 2020

- Developed a score-based player matching system with a novice protection mechanism for an online poker platform. New system granted an increase in Day 7 Retention Ratio by 3.6%, and in Games Per Day by 11.7% after launch.

  Parsed massive game log data using `HiveQL` and `Python`; used methodologies like `TrueSkill` and Random Forest to construct players' skill points and characteristics; applied `Crontab` and `Redis` to assure the matching speed.
- Jointly developed probabilistic strategic parameter optimization for recommendation systems aiming at multiple commercial goals. The probabilistic solution improved User Engagement, 'Like' and 'Share' Action Rates by 0.22%, 2.00%, 1.85% simultaneously. It also achieves 1.70% revenue improvement in ads-retrieval system.

  Extensively cooperated with the commercialization department; jointly developed the automatic data processing and probabilistic tuning pipeline; troubleshot the issue of parameter overwriting in a multiple teams collaboration.

University of Washington *Research Assistant* Sep. 2017 - June 2021

Participated in multiple projects funded by *DARPA*, *USDOT*, etc. Key projects:

- Personalized App-based Incentive Transportation Demand Management System Oct. 2018 - Jun. 2021
- Data-Driven Discovery of Models: D^3M Feb. 2019 - Dec. 2019
- Detecting Wifi Spoofing Attacks using Wireless RSSI Data June 2018 - Mar. 2019

Publications

Feng, J., Zhu, Xi., Wang, F., Huang, S., and Chen, C., A Learning Framework for Personalized Random Utility Maximization (RUM) Modeling of User Behavior, *IEEE Transactions on Automation Science and Engineering*, 2020.

Feng, J., Huang, S., and Chen, C., Modeling User Interaction with App-based Reward System: A Graphical Model Approach Integrated with Max-Margin Learning, *Transportation Research Part C: Emerging Technologies*, 2020.

Zhu, Xi., **Feng, J.**, Huang, S., and Chen, C., An Online Updating Method for Time-Varying Preference Learning, *Transportation Research Part C: Emerging Technologies*, 2020.

(Submitted) Ding, W., Tang H., **Feng, J.**, Yuan, L., and et al., `PASTO`: Strategic Parameter Optimization in Recommendation Systems – Probabilistic is Better than Deterministic, *NeurIPS*, 2021.

Community Engagement

Volunteer (Session Monitor), *INFORMS 2019, Seattle, WA*

Vice President and Volunteer, *The China-R Conference, Beijing, China*

Editor, *Capital of Statistics (cosx.org)*

Co-Translator, *ggplot2: Elegant Graphics for Data Analysis (Second Edition)*

Technical Skills

Languagues: Python, SQL, R, MATLAB, C, Julia

Quantitative Methodologies: Convex Optimization, Integer Optimization, Robust Statistical Experimental Design, Causal Modeling, Bayesian Modeling, Time Series Analysis, Markov Decision Processes, Engineering Simulation