YIFAN REN

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EDUCATION

Fordham University, New York, USA — Dec 2020

M.S. at Dept. of Information, Technology, and Operations, Gabelli School of Business — GPA: 3.9/4.0

Wuhan University, Wuhan, China — Jun 2019

B.A. at Experimental Class of Humanities Sciences; Minor in Marketing

- Relevant Coursework: Web Analytics (A), Text Analytics (A), Big Data Analytics (A), Database Management (A), Statistics (A), Data Mining (A-), C Programming Language (93%), Statistical Analysis System (91%)
- Awards: Dean's Scholarship at Fordham University, Scholarship for Outstanding Freshman in Basic Subjects at Wuhan University

PUBLICATIONS

Ren, Y., Weiss, G. 2020. "A Comparison of Important Features for Predicting Polish and Chinese Corporate Bankruptcies," in *Proceedings of the 16th International Conference on Data Science (ICDATA)*, Las Vegas, NV: American Council on Science and Education. (Forthcoming)

Ren, Y., Zhou, Y., Xu, H. 2020. "Fad, Fashion or Classic? Fashion Life Cycle Forecasting with Instagram," in *Proceedings of the 41st International Conference on Information Systems (ICIS)*, Virtual: Association for Information Systems. (Forthcoming)

Ren, Y., Zhou, Y., Xu, H. "Fashion Life Cycle Classification through Forecasted Trends on Social Media," under preparation for *Information Systems Research*. (Work in Progress)

Laurian, L., Qian, H., Zuo, Z., **Ren, Y.** "Understanding the Field of Urban Planning through Informatics," under preparation for top journals in the field of urban planning. (Final Draft)

RESEARCH EXPERIENCE

Estimating Fashion Trend on Social Media — Sept 2019 - May 2020

Advisor: Yilu Zhou, associate professor at Gabelli School of Business, Fordham University

- Data Collection: Developed web crawling scripts to collect millions of Instagram posts and e-commerce data from Tmall, scrubbed data into structural format, and handled it on Google Cloud Platform
- Program Development: Forecasted the popularity of fashion elements on Instagram based on time-series models (Prophet, ARIMA, and Moving Average), achieved an average Median Absolute Percentage Error (MdAPE) of 0.208 for 25 elements, and validated results based on correlation between the estimated popularity on social media and Google Trends

Understanding the Field Evolution of Urban Planning through Informatics — May 2020 - Present

Advisor: Zhiya Zuo, assistant professor at the Department of Information Systems, City University of Hong Kong

- Data Collection: Improved existing open-source API by adding new functions and robust validation methods to collect publication history in urban planning, storing in a SQLite database
- Descriptive Analysis: Visualized publication history across multiple planning schools using Matplotlib, and calculated chronological indicators such as Gini and entropy within publications among faculty groups

- Network Analysis: Detected influential planning schools through PageRank by examining a directed hiring network of Ph.D. graduates' academic employments and their graduate universities
- Text Mining: Conducted LDA topic modeling on abstracts of publications using NLTK and Gensim, and extracted relevant article topics to explore the evolution of urban planning measured by citations and counts of articles, revealing popular research topics across eras

Bankruptcy Prediction on Polish and Chinese Markets Nov 2019 - May 2020

Advisor: Gary Weiss, full professor at the Department of Computer & Information Sciences, Fordham University

- Data Collection: Extracted Chinese market bankruptcy data from WIND financial database, combined such data with public bankruptcy data on Polish market, covering 6,591 firms' financial histories
- Bankruptcy Prediction: Conducted supervised classification task to predict company bankruptcy using logistic regression, tree models, and created methods, separately for Polish and Chinese Markets
- Feature Analysis: Compared model features across two datasets to analyze similar indicators, such as working capital, and different indicators affecting company bankruptcy

WORK EXPERIENCE

Bytedance Inc. Apr - Jul 2019

Product & Data Analyst (Intern)

- Launched product based on customer survey analysis in "Groups" team, promoting total users from 0.3 million to 1 million and increased Day 1/Day 30 User Retention Ratio by ~30%/20%.
- Developed Naïve Bayes and Tree models to predict potentials of content producers based on features generated from users' historical activities and support operation strategies for content producer incentives

TEACHING EXPERIENCE

Teaching Assistant & Lab Instructor Spring 2020

Gabelli School of Business, Fordham University

- BPHD 9031: Machine Learning & Text Mining 2 (PhD-level course)
- Conducted six labs, including NLTK, sentiment analysis, topic modeling, and text classification.

Teaching Assistant & Lab Instructor Spring 2021

Gabelli School of Business, Fordham University

- BYGB 7977: Text Analytics (Master-level course)

COMMUNITY ACTIVITY

Conference Reviewer

- International Conference on Information Systems (ICIS)

Association for Information Systems

- Student Membership

SKILLS

- Technical: Python (Advanced); SQL (Advanced); Tableau (Advanced); R (Basic); HTML/CSS (Basic)