GAOMIN WU

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EDUCATION

New York University; Center for Data Science *June 2021*
Master of Science in Data Science GPA: 3.93/4.0

Tongji University; School of Physics Science & Engineering *June 2019*
Bachelor of Applied Physics GPA: 4.64/5.0

Relevant Courses: Introduction to Data Science; Probability and Statistics; Multivariate Statistical Analysis; Machine Learning; Big Data; Deep Learning; Probabilistic Time Series; Natural Language Processing ;Deep Reinforcement Learning;

WORK EXPERIENCE & RESEARCH

Amazon Web Service June 2020 - August 2020
Data Center Capacity Delivery and Planning Team *Data Scientist Intern*
- Developed a framework to identify root causes for sub-optimal orders in AWS and quantify their opportunity cost.
- Made actionable recommendations to reduce opportunity cost by over 1 million USD.
- Developed a dashboard and deployed my framework. This is currently used by multiple teams in AWS.

Alibaba Group Dec 2019 - Jan 2020
Business Platform Division *Machine Learning Intern*
- Designed a reinforcement learning model for targeted promotion with budgets constraints, and deployed it in Taobao.
- Designed and deployed a online evaluation framework to quantify the effectiveness of the deployed model.

New York University Sept 2019 - June 2020
Stern School of Business *Part-time Research Assistant*
- Designed and implemented a deep reinforcement learning for application of personalized coupon targeting in online shopping which has 6% increase in redemption compared with the original method.
- Built the data and model pipeline, and implemented several off-policy evaluation methods for offline evaluation.

City University of Hong Kong July 2018 - July 2019
Management Science Department *Part-time Research Assistant*
- Implemented machine learning(ridge, lasso, GBDT etc.) and neural networks on different financial data for return prediction model via Python (Sklearn & Keras) to compare performance of different algorithms under cumulative training window.

eBay Feb 2019 - July 2019
Global Trust Team *Data Analyst Intern*
- Implemented an end-to-end machine learning project of Defect Transaction Prediction.
- Built several complete ETL pipelines using SQL to monitor defect KPIs with weekly reports for regional leads consideration.

PROJECTS

Clinical BERT based on Longformer Sept. 2020 - Dec. 2020
- Built vocabulary for medical clinical notes and trained a word embedding with it by training MLM with Longformer from scratch.

News Session-based Recommendation System using Recurrent Neural Networks Nov. 2019 - Dec. 2019
- Trained a recommendation system of the news article using a recurrent neural network based method – GRU4Rec and implemented item-based KNN and session-based KNN as baseline models.

Chatbot with persona Sept. 2019 - Oct. 2019
- Trained a Seq2Seq model with attention on ConvAI dataset for training, and implemented beam search to generate predictions.

PUBLICATIONS

1. "Asymmetric nonlinear system is not sufficient for a nonreciprocal wave diode," Gaomin Wu, Yang Long, and Jie Ren, 97.20 (2018): 205423.
2. "Reciprocal conditions in one-dimensional nonlinear wave systems." Yan, Hengzhe, Gaomin Wu, and Jie Ren. Physical Review E 100.1 (2019): 012207.
3. "Nonlinear Heat Radiation Induces Thermal Rectifier in Asymmetric Holey Composites." Zhu, Weiwei, Gaomin Wu, Hong Chen, and Jie Ren. Frontiers in Energy Research 6 (2018): 9.

TECHNICAL SKILLS

Programming: Python, SQL, Spark, R, MATLAB, C/C++
Software & Tools: LaTeX, Scikit-Learn, Keras, PyTorch, PySpark, AWS, Mathematica, Git