Qike (Max) Li

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OVERVIEW

- Big data, machine learning, deep learning, probabilistic programming.
- Python, Spark, PyTorch, Tensorflow, SQL, R, Pyro, Edward.
- NLP, Bayesian statistics, anomaly detection, explainable AI(XAI).
- Cross-functional collaboration with product managers, engineers, and operations.
- Transform ambiguous business needs to solid technical roadmaps and actionable tasks.
- Thirteen scientific papers (six as first author) in applied statistics, one patent, one blog post.

EDUCATION

Ph.D. in Statistics 2012-2017

University of Arizona, Tucson, AZ

Statistics Graduate Interdisciplinary Program (GIDP)

Advisors: Hao Helen Zhang (Statistics) & Yves A. Lussier (Biomedical Informatics)

APPOINTMENTS

Data Scientist 2019.4-present

DoorDash

- Demand-supply gap estimation with probabilistic machine learning models
- Lead generation with Gaussian process and natural language processing
- Demand forecasting for promotions with Bayesian models.
- UI optimization with multi-armed bandits
- Item tagging with natural language processing(NLP)
- Building personalized recommendation systems using deep learning and NLP

Data Scientist 2018.2-2019.4

Quantiply

- Leveraged Machine Learning/Artificial Intelligence to tackle financial fraud (http://www.fatf-gafi.org/faq/moneylaundering/).
- Developed deep learning, nonparametric Bayesian, and probabilistic models to detect anomalous financial behaviors.
- Built ensemble learning models with Bayesian and frequentist frameworks.
- Built automatic machine learning (AutoML) tools to democratize access to machine learning.

Postdoctoral Fellow 2017.9-2018.2

Center for Biomedical Informatics & Biostatistics, University of Arizona

Collaborated with Natural Language Processing experts, computer scientists, and physicians to conduct research in case-based reasoning using data retrieved from the electronic medical record (EMR).

Research Assistant 2014-2017.8

Lussier Group, Center for Biomedical Informatics & Biostatistics, University of Arizona

Responsibilities include original methodology research, statistical support, grant writing, and software engineering.

- Developed statistical methods for advancing precision medicine. These methods were published in 3 peer-reviewed papers, implemented as R packages, used as a major component of an NIH grant, and were applied in six medical research projects.
- Engaged in interdisciplinary research: working with an expert team of statisticians, physicians, engineers, biologists, geneticists, and computer scientists.
- Served as an in-house statistical consultant to translate medical questions to data science problems, apply/develop machine learning/statistical algorithms to solve those problems, and communicate results through visualization, presentations, and reports.

TECHNICAL SKILLS

Python, Spark, SQL, PyTorch, Tensorflow, probabilistic programming, Edward, Pyro, Git, R, UNIX, AWS, distributed computing

EXPERTISE

Deep learning, probabilistic inference, unsupervised learning, NLP, Bayesian statistics, Large-scale inference, machine learning (linear and logistic regression, decision trees, GBM, SVM, KNN, k-means, random forest, dimensionality reduction, etc.), computing, data visualization, big data, multivariate statistics, temporal data analysis.

TALKS

- "The 2018 Pacific Symposium on Biocomputing", The Big Island of Hawaii, USA, 1/5/2018
- "The 7th Annual Translational Bioinformatics Conference", Los Angeles, USA, 9/30/2017
- "Joint Statistical Meetings (JSM)", Baltimore, USA, 7/30/2017
- "WNAR Annual Meeting", Santa Fe, USA, 6/27/2017
- "The 6th Annual Translational Bioinformatics Conference", Jeju, Korea, 10/16/2016
- "Short Course: Computational methods for precision medicine and single subject studies with genomes and transcriptomes", Jeju, Korea, 10/15/2016

AWARDS/GRANTS

- Distinguished Written Paper Award, June 2017, WNAR
- PSB 2018 Travel Grant, Fall 2017, Pacific Symposium on Biocomputing
- HE Carter Travel Grant, Summer 2017, University of Arizona
- Travel Grant, Summer 2017, Statistics GIDP, University of Arizona
- HE Carter Travel Grant, Fall 2016, University of Arizona

PUBLICATIONS

- Patent: bit.ly/qmaxli_patent1
- Blog: bit.ly/qmaxli_blog1
- Google scholar page: bit.ly/qmaxli