Qike (Max) Li

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OVERVIEW

- Big data analytics, machine learning, probabilistic programming.
- Deep Learning, reinforcement learning, Bayesian statistics, explainable AI(XAI).
- Python, R, Tensorflow, Edward, H2O, Spark.
- Distributed computing, model serving.
- Twelve scientific papers (six as first author) in applied statistics.
- Effective communication and visualization of data.

EDUCATION

Ph.D in Statistics 2012-2017

University of Arizona, Tucson, AZ

Statistics Graduate Interdisciplinary Program (GIDP)
Minor in Biostatistics
Advisors: Hao Helen Zhang (Statistics) & Yves A. Lussier (Biomedical Informatics)

APPOINTMENTS

Data Scientist 2018.2-present

Quantiply

- Leveraging Machine Learning/Artificial Intelligence to tackle financial fraud (http://www.fatf-gafi.org/faq/moneylaundering/).
- Developing deep learning, nonparametric Bayesian, and probabilistic models to detect anomalous financial behaviors.
- Building explainable artificial intelligence (XAI) models.
- Building ensemble learning models with Bayesian and frequentist frameworks.
- Building 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 (NLP) 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 being applied in more than 5 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.

Research Assistant 2013-2014
McCarthy Group, University of Arizona
Developed statistical informatics methodology for RNA-Seq analysis.

TECHNICAL SKILLS

Python, R, UNIX, Tensorflow, probabilistic programming, Edward, SQL, Spark, Git, H2O, Cluster computing, distributed computing

EXPERTISE

Deep learning, probabilistic inference, 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, high-throughput data, high dimensional data, 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

Google scholar page: bit.ly/qmaxli