Xu Tian

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Objectives Experienced and dedicated PhD researcher with over 7 years of academic and industrial research, engineering and programming experience looking for new challenges as a Quantitative Researcher in the financial market.

Summaries

- Machine learning, statistical modeling/computing, data mining, data munging, optimization, big data analytics
- Python (NumPy, Pandas, Scikit-learn, Matplotlib, NLTK), R (dplyr, VIM, mice, ggplot2, Shiny, xgboost, randomForest)
- Matlab, C++, SQL, Pig, MapRedue, AWS (S3, EC2, EMR), RStudio, Jupyter, Pweave, GitHub, RMarkdown and Latex.
- Hard working with strong motivations; fast, curious and continuous learner with a broad base of knowledge and skills.
- Excellent in communication; goals and details oriented and an adaptive team worker; creative and think out of the box.

Industry Experience

Quantitative Researcher Intern, *Fitzroy Capital Management, New York, NY* 11/16-*Present*

- Designed trading strategies based on machine learning models, Fama-French factor models and state space models based on technical analysis factors, equity data, and economic factors etc., programmed in Python Pandas.

Senior Statistician, *Validus Research, Validus Holdings, New York, NY* 05/15-11/16

- Built a Random Forest model to improve the flood insurance policy selection process based on 10-year claims data (6 million records) on the AWS (EC2) platform and generated an additional 12 million dollars potential profit per year.
- Built the cloud computing system OGVHQ for analyzing spatial correlations in Python on AWS (S3, EMR).
- Built a discrete event random simulation program for pricing insurances by generating master-iteration files in C++.

Data Insights Manager, *Search Analysis Team, Yahoo! Inc., Sunnyvale, CA* 06/14-05/15

- Built a linear regression model to predict the movie box office revenues using Yahoo search volume data and found significant early signals having strong predictive power that led to business opportunities with Hollywood studios.
- Created and validated evaluation metrics and conducted statistical analysis for PC and mobile search products.

Data Scientist Intern, *Market Place, Yahoo! Inc., Burbank, CA* 06/13-09/13

- Built the Yahoo user transition matrix among properties to study user behaviors and developed a systematic overview.
- Extracted and analyzed the top 100K queries for each segmentation group to gain insights for products improvement.

Business Intelligence Analyst Intern, *Dept. of Finance, Blizzard Entertainment, Irvine, CA* 06/10-09/10

- Developed a novel regime-switching survival analysis model to estimate World of Warcraft players' in-game lifetime and short/long term churn rates and achieved 98.9% accuracy predicting one-month churn-rate in back-testing.

Education

Ph.D. in Statistics *University of California, Irvine, Irvine, CA* GPA: 3.9/4.0 09/08-06/14

- Thesis title: A Time-Varying Low-Dimensional Representation for Spatio-Temporal Data

B.E. in Automotive Engineering *Tsinghua University, Beijing, China* GPA: 3.6/4.0 09/03-07/07

Academic Experience

Research Assistant, *Dept. of Statistics, UC Irvine, Irvine, CA* 08/09-06/14

- Examined the North Atlantic Oscillation (NAO) patterns based on sea level pressure data at 1325 locations over 60 years using PCA and bootstrapping methods with uncertainties and created novel angular indices.
- Built a novel time-varying parametric structured covariance matrix model in the state space model framework to capture the evolution of NAO and developed inference methods in the Bayesian paradigm with MCMC algorithms.

Teaching Assistant, *Dept. of Statistics, UC Irvine, Irvine, CA* 08/08-12/09

- Organized weekly discussions for 6 intro to intermediate statistical courses with median evaluation 7.3/9.0 on average.