STEVEN WANG

2394 Bishop Street, Ann Arbor • Mobile: 612-707-5940 • baixiang@umich.edu • Employment Status: OPT 3-Years LinkedIn: https://www.linkedin.com/in/steven-baixiang-wang-59b258140
GitHub: https://github.com/BaixiangGithub

EDUCATION

University of Michigan Ann Arbor, MI
Master of Science in Quantitative Finance and Risk Management (STEM) | GPA 3.6/4.0 Expected 04/2019
Relevant Courses: Computational Data Science, Machine Learning, Bayesian Modeling, Database management, Capital Market investment, Financial Mathematics, Linear models, Stochastic Process, Stochastic Calculus, Time Series

University of Minnesota Twin Cities Minneapolis, MN
Bachelor of Arts in Mathematics, Graduate with Honors | GPA 3.84/4.00 August 2017
Relevant Courses: Probability, Fourier Analysis, Partial Differential Equations, Programming in Python, Machine Learning.

- Dean's List, University of Minnesota Twin Cities (2014, 2016)
- Best project in "Classical Mechanics & Calculus of Variation", Penn State University (2015)

EXPERIENCE

Global AI, Inc. New York, NY
Machine Learning/Quantitative Strategy Intern May 2018 – August 2018

- Modeled Macro financial risk measures such as turbulence & absorption ratio for developing trading scores and conducting asset allocation (MATLAB).
- Derived a bivariate Markov regime-switching model from scratch via MATLAB; plugged in GDP growth and inflation for conducting regime-based asset allocation; characterized local maximum region of the likelihood, resulting in achieving a better economic intuition. (**Programmed K-means for parameter initializations, EM optimization, Kim-Smooth algorithm, Hamilton filter and multivariate time series.)**
- Documented and compared performances of various indices under inferred macro regimes for conducting regime-based asset allocation.
- Used python to conduct two dynamic asset allocations based on one market timing signal (absorption ratio) and a regime-switching model on turbulence, achieving 52% and 88% increases in the Sharp ratios compared to static strategies.
- Reviewed assigned academic papers, and replicated pricing models from reinforcement-learning (Q-Learning) for portfolio construction **(Dynamic programming scheme, least-square optimizations and Monte Carlo simulations were programmed in python)**
- Back-tested Q-Learning models on GARCH processes (via Python).
- Extracted, filtered, & cleaned financial and macroeconomic data via Quandl & Yahoo Finance (in Python).

CyteTherapeutics, Inc. Irvine, CA
Biostatistics Intern Summer 2014

- Performed biostatistical analysis of clinical outcome data from cord blood hematopoietic stem cell transplantation for thalassemia and other disease including HIV using R.
- **Applied cumulative incidence and statistical models such as logistic regression to search for variables that affect clinical outcome and compare methods of producing stem cells, using R. (see relevant publications)**
- Performed clinical outcome data verification and analysis using Kaplan-Meier Product Estimates for survival, mortality curves, and relapse rate.

Project: Database Design in SQL
January 2019

- Design ER Diagram that satisfies given constraints and implement the diagram by SQL DDL statements.
- Populate the data base by loading public data set into personal tables
- Create external views to display the data

Undergraduate Research Program 'MASS' at Pennsylvania State University University Park, PA
Visiting Student Researcher August 2015 – December 2015

- Used MATLAB to complete three computer-based independent projects on lie theory, classical mechanics, and algebraic geometry; and gave presentations at the end of the semester.
- Improved my interpersonal skills by joining in discussions on weekly colloquia sponsored by invited mathematicians.

SKILLS

Skills: Python, R, Matlab, SQL,Excel, Machine Learning, Reinforcement Learning, Risk Management, Financial Modeling
Languages: Bilingual (Mandarin & English)

PUBLICATIONS

1. Chow, R., Li, Q., Chow, C., Guo, V., Dang, T., Rao, A., Zeng, T., Chow, D.T.L., **Wang, B.**, and Chow, M., "Cord Blood Stem Cell Processing, Banking and Thawing" in *Umbilical Cord Blood* Ed. Maurício, Ana Colette, Intech Publishers, Rijeka, Croatia, 2016 (Chapter In Press).
2. Chow, C., Dang, T., Guo, V., Chow, M., Li, Q., Chow, D.T.L., Rao, E., Zeng, T., **Wang, B.**, and Chow, R. "Optimization of Unrelated Donor Cord Blood Transplantation for Thalassemia - Implications for other Non-Malignant Indications such as HIV Infection or Autoimmune Disease", in Umbilical Cord Ed. Maurício, Ana Colette, Intech Publishers, Rijeka, Croatia, 2016 (Chapter In Press).