# STEVEN WANG

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## EDUCATION

**University of Michigan**                                                                                    Ann Arbor, MI
Master of Science in Quantitative Finance and Risk Management (STEM) | GPA 3.60/4.00 (expected)        Expected 03/2019
*Relevant Courses: Financial Mathematics, Stochastic Process, Stochastic Calculus, Numerical Methods, Linear Regression*

**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
*Quantitative Strategy Intern*                                                                   May 2018 – August 2018
- Modeled financial risk measures such as turbulence & absorption ratio for developing trading scores and conducting asset allocation (MATLAB); back-tested trading scores from turbulence index for choosing a suitable threshold that can be used in paper trading.
- Developed a bivariate Markov regime-switching model (machine learning) from scratch via MATLAB then plugged in GDP growth and inflation for conducting regime-based asset allocation; characterized local maximum region of the log-likelihood of the model, resulting in achieving a better economic intuition.
- 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 (via Python).
- Back-tested the Q-Learning model on BS and GARCH processes (via Python).
- Extracted, filtered, & cleaned financial and macroeconomic data via Quandl & Yahoo Finance on a daily basis (in Python).

**CyteTherapeutics, Inc.**                                                                                     Irvine, CA
*Biostatistics Intern*                                                                          *January 2015-January 2017*
- Performed biostatistical analysis of clinical outcome data from cord blood hematopoietic stem cell transplantation for thalassemia and other disease including HIV using R (see relevant publications).
- Performed clinical outcome data verification and analysis using Kaplan-Meier Product Estimates for survival, mortality curves, and relapse rate.
- Applied cumulative incidence, univariate, and multivariate analysis to search for variables that affect clinical outcome and compare methods of producing stem cells, using R.

**Undergraduate Research Program 'MASS' at Pennsylvania State University**                      University Park, PA
*Visiting Student Researcher*                                                              August 2015 – December 2015
- Used MATLAB to complete two computer-based independent projects on lie theory and classical mechanics; 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: Machine Learning, Computational Data Science, Python (Intermediate), R (Intermediate), Matlab, SQL, C++ (Entry level), Reinforcement Learning, Risk Management, Financial Modeling, Deep Learning.
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).