Yuting Liu

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EDUCATION

UNIVERSITY OF MICHIGAN (U-M) — **Ann Arbor, MI**

9/2017 - 12/2018
- M.S. in Quantitative Finance and Risk Management (GPA: 3.87/4.00)
- Course highlights: Financial Mathematics, Stochastic Calculus, Linear Programming, Statistics and Data Analysis for Finance, Machine Learning, Financial Derivatives

9/2015 - 4/2017
- B.S. in Mathematics with Honors (GPA: 3.60/4.00)
- Course highlights: Analysis on Manifold, Probability Theory, Stochastic Process, Combinatorics and Graph Theory, Numerical Analysis, Computational Finance, C++

9/2012 - 7/2015 **WUHAN UNIVERSITY** — **Wuhan, Hubei, China**
- B.A. in Economics with Honors & B.S. in Mathematics (GPA: 3.85/4.00)
- Course highlights: Advanced Micro/Macroeconomics, Econometrics, Game Theory, Linear and Abstract Algebra, Statistics, Real Analysis, Topology

EXPERIENCE

10/2018 - Present **DATA ANALYST INTERN** — **Ann Arbor, MI**
Corporate Strategy Team, DTE Energy

✓Python
✓large data sets
✓machine learning
- Contracted with DTE to assist them with the pre-processing, operation, and post-processing of a rate design model by processing large data sets of 12 month load profiles of 1.5 million electric customers
- Applied unsupervised machine learning method of k-means clustering to construct a minimal sized, statistically representative sample

6/2018 – 7/2018 **PRIVATE EQUITY SUMMER INTERN** — **Beijing, China**
Department of Portfolio Development, Hillhouse Capital Group

✓finance
✓market research
✓MS Excel
- Performed data-based market research on the medical industry; for more than 50 drug companies, extracted financial data from annual reports to analyze trends, major players and competition patterns in the industry with Excel
- Analyzed data from target company and its main competitors to do due diligence; wrote reports on sales of their star products, pros and cons to help target company improve performance

PROJECTS

2/2018 - Present **FINANCIAL MATHEMATICS RESEARCH PROJECT** — **Ann Arbor, MI**
Department of Mathematics, U-M

✓math modeling
✓stochastic
✓optimization
- Modeled an expected utility maximization problem in a stochastic volatility environment
- Implemented HJB equations via Itô's formula and dynamic programming principle of stochastic control; extended it to a multi-dimensional setting
- Reduced the problem to a system of ordinary differential equations and solved explicitly

10/2017 - 12/2017 **PORTFOLIO ANALYSIS PROJECTS** — **Ann Arbor, MI**
Ross School of Business, U-M

✓finance
✓regression
✓back-testing
- Completed four projects on portfolio selection and prediction in a team of three
- Extracted financial data from Factset terminal and processed it in Excel
- Applied strategies of total asset growth anomaly, multiple regression, pairs trading, momentum trading to portfolio selection; back tested our strategies and predicted their future performances

11/2015 - 12/2015 **ARDUINO MICRO ARCADE** — **Ann Arbor, MI**
Department of Electrical Engineering and Computer Science, U-M

✓C++
✓Teamwork
- Designed and developed two games – Space Invaders and Snake – by programming in C++; tested the games and enriched them with new extensions
- Linked sensors to an external LED screen via Arduino micro-controller to make games playable on the screen; understood the basics of how software can control hardware
- Collaborated with three other teammates, dividing work and sharing code to make everyone involved and inspired

ADDITIONAL

- Computer skills: Python, R, C++; MS Office, LaTeX
- Python packages: numpy, Matplotlib, Scikit-Learn, etc.