Sailun Xu

sx38@cornell.edu | (607) 379-8886 | www.linkedin.com/in/sailun-xu-9a9046105/

EDUCATION & HONORS

Carnegie Mellon University, School of Computer Science **Aug 2018 - Dec 2019**
Master of Science in Machine Learning *5000 Forbes Ave, Pittsburgh, PA 15213*
Cumulative GPA: 3.77 out of 4.3
Relevant Coursework: Introduction to Deep Learning, Mathematical Probability and Statistics, Introduction to Machine Learning, Convex Optimization, Parallel Computing

Cornell University, College of Arts & Sciences **Aug 2014 - May 2018**
Bachelor of Arts in Computer Science, Mathematics(Cum Laude) *260 Day Hall, Ithaca, NY 14853*
Cumulative GPA: 4.16 out of 4.3
Honors: Dean's List (all semesters), Phi Beta Kappa Honor Society(top 3%), Robert J. Smith Undergraduate Award for Most Promising Japanese Language Student, Successful Participant Award for Mathematical Contest in Modeling
Relevant Coursework: Analysis, Linear Algebra, Abstract Algebra, Stochastic Process, Convex Analysis, Bayesian Machine Learning, Functional Programming, Algorithms, Operating System and Practicum, Distributed Systems

EXPERIENCE

Citadel Securities **Feb.24th 2020 - Present**
Quantitative Research Analyst *131 South Dearborn St., Chicago, IL 60603*
- Develop efficient automative trading strategies using an event-dispatching schema using python & C++. Experiment various combination of strategy parameters on historical data to maximize P&L and sharpe ratio. Impose various risk control mechanisms to prevent sending erroneous orders or exceeding our desired position.
- Maintain daily running simulation job so as to guide our live trading parameter pick and products we trade.
- Maintain daily running reconciliation job to make sure our live trading is reasonably close to our simulation.

Citadel Securities **May.20th 2019 - Aug.9th 2019**
Quantitative Research Intern *131 South Dearborn St., Chicago, IL 60603*
- Constructed features, proposed and cross-validated different models to predict alpha for different pools of fixed income products, with R-squared score increased from a baseline of 1% to 3%
- Developed a custom simulation framework for back-testing different strategies with adjustable trading cost assumption. Under optimistic setting, best strategy realized an annualized return of 50%
- Developed a widget in Jupyter Notebook based on Ipywidgets and Xarray, which enables easy P&L visualization and comparison between different strategies on metrics such as sharpe ratio and max drawdown.

Carnegie Mellon University **Jan.18th 2019 - Dec.18th 2019**
Graduate Student Researcher *5000 Forbes Ave, Pittsburgh, PA 15213*
- Researched on organic molecule exploration guided by Gaussian Processes under the supervision of Prof. Jeff Schneider. Proposed and implemented a new kernel based on optimal transport cost where molecules are viewed as graphs.
- Submitted to NIPS 2019. Arxiv link: https://arxiv.org/abs/1908.01425

Citadel Securities **June 25th 2018 - Aug.17th 2018**
Quantitative Research Intern *131 South Dearborn St., Chicago, IL 60603*
- Developed tools for our code generation framework, including a minimum parser, a load-balance optimizer, and a graph dependency visualization based on dagre-d3
- Implemented inter-host lock based on Redis primitives
- For lz4 zip file, implemented cache and appended indexing to the end for faster seeking time

Citadel Securities **June 5th 2017 - Aug.18th 2017**
Software Engineering Intern *350 Park Ave, New York City, NY 10022*
- Designed and implemented an extensible scheduling framework to run routine checks on key indices and trading parameters as well as a webpage for delivering the latest result of these checks to other developers and traders

Cornell University **Jan.21st 2017 - May 27th 2018**
Student Researcher *260 Day Hall, Ithaca, NY 14853*
- Perform independent research on recommendation system, supervised by Prof. Kilian Weinberger
- Train factorization machine model using gradient descent and optimize hyper parameters

SKILLS & LANGUAGES

Computer Skills: Python, C/C++, Java, JavaScript, OCaml, MySQL, PHP,
Language: Native Speaker of Mandarin, Basic Fluency in Japanese