Kai Yuanqing Xiao

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EDUCATION

Massachusetts Institute of Technology — Cambridge, MA
Candidate for B.S. Degree in Computer Science and Mathematics; GPA: 5.0/5.0 — 2013-2017
Coursework: Advanced Algorithms, Probability Theory, Algorithms for Inference, Computer Vision, TA for Algorithms II

Oxford University — Oxford, UK
Visiting Student in Mathematics at St. Peter's College — Jan.-June 2016
Coursework: Machine Learning, Networks

Bellarmine College Preparatory — San Jose, CA
GPA: 4.0/4.0; SAT: 2400 — 2009-2013

WORK EXPERIENCE

Citadel — Chicago, IL
Summer Quantitative Research Analyst — Summer 2016
- Used text mining and sentiment analysis on a unique dataset to construct alpha signal
- Improved the data processing pipeline and evaluated changes using characteristic portfolios and simulations

D.E. Shaw & Co. — New York City, NY
Quantitative Analyst / Software Development Intern — Summer 2015
- Created mathematical models for the behavior of specific types of trades based on market conditions
- Used vectorized operations in NumPy to analyze large amounts of historical data

A9 (Product Search Team) — Palo Alto, CA
Software Development Engineer Intern — Summer 2014
- Worked with Apache Hadoop and Apache Pig to perform map-reduce tasks
- Generated and logged statistical metrics related to Amazon's product search rankings
- Mined Twitter data for trending music and showed related items available on Amazon (side project)

Jane Street Capital — New York City, NY
Assistant Trader — January 2014
- Modeled stock market behavior through analysis of historical and recent financial data

Stanford University Chemistry Department; Bianxiao Cui, Ph.D. — Stanford, CA
Data Analysis Intern — July-Aug. 2012
- Processed images of protein movement across axons; traced curves in images using MATLAB program
- Improved functionality of MATLAB curve-tracing program after learning the language from scratch

LEADERSHIP EXPERIENCE

MIT TechX
Director of Corporate Relations — 2014-2015
- Leader of student group that communicated with companies to sponsor and exhibit their technologies at MIT's annual xFair
- Worked with other executive board members to run events that expose MIT students to cool technology

PROJECTS & RESEARCH

Cookie Clicker; Erik Demaine, Ph.D. — Present
- Analyzing optimal strategies for incremental games like Cookie Clicker
- Working on NP-Completeness result and approximation algorithms

Neural Connectivities Analysis; Shafrira Goldwasser, Ph.D. — Spring 2016
- Analyzed neural connectivities dataset using spectral clustering and community graph model

Paper on Online Algorithms — December 2014
- Wrote an original paper discussing online algorithms applied to HitGrab's game Mousehunt

Multi-player Pinball Game — May 2014
- Used Java to create a multi-player pinball game with multiple clients and a server

AWARDS

Math and Science Olympiads — 2009-2013
- Qualified 4 times for USA Math Olympiad; Ranked top 24 in the nation out of over 100,000 in 2012
- Attended Math Olympiad Summer Program 2 times; top 50 students on the USA Math Olympiad are invited

SKILLS & INTERESTS

- Computer Programming: Python, Java, C, R
- Interests: Dance, Ultimate Frisbee, Pi Lambda Phi Fraternity, Basketball, Alpine Skiing, Speech and Debate