Richard Wu

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Experience

Two Sigma | AI Researcher | 2019 - present

Deep learning/AI for trading in Python.

Under NDA.

Citadel | Quantitative Researcher Intern | 2018

Alpha research in Python.

Developed quantitative econometric models on new alternative datasets.

Cockroach Labs | SWE Intern | 2017

Distributed SQL systems work in Go.

Increased query throughput by 2.2x with more efficient interleaved SQL joins.

Google | SWE Intern | 2017

Scheduling research on the Borg team in C++, Go.

Streamlined simulation run times by 60x by overhauling cluster scheduling simulator.

Shopify | SWE Intern | 2016

Backend and full-stack software in Ruby.

Publications

Attention-based Learning for Missing Data Imputation   bit.ly/2P1oXbd

Lead author on state-of-the-art missing data imputation model using a self-attention mechanism. MLSys 2020.

Evaluation of NUMA-Aware Scheduling in Warehouse-Scale Clusters   bit.ly/3g1vmSG

Lead author on cluster scheduling algorithm and its impact on Google workloads. CLOUD 2019.

Competitions

1st Place | UofT Citadel Data Open | 2019
1st/25 teams at U. of Toronto qualifiers. Random-effects and GLM models for flu outbreaks. bit.ly/304T4I7

1st Place | UofW Citadel Data Open | 2017
1st/20 teams at U. of Waterloo qualifiers. Regression analysis on US education system. bit.ly/336VzMd

1st Place | Hack the North | 2015

6th/6000+ | Canadian Senior Math Contest

98th p-tile | Canadian Open Math Challenge

Education

University of Waterloo

Bachelor of Computer Science, Statistics minor, Honours, 2015 – 2019
GPA: 92%
- President's Scholarship of Distinction
- Software Engineering Scholarship
- Joe C. Lee Math Entrepreneurial Award
- K.C. Lee Computer Science Scholarship
- Konrad Group Technology Scholarship

Currently reading
- Reinforcement Learning (Sutton & Barto)
- Deep Learning (Goodfellow et al)
- Elements of Statistical Learning

Skills

Languages
Python • C++ • Go • SQL • Bash • C

Frameworks & Tools
TensorFlow • PyTorch • pandas • numpy • numba • PyMC • statsmodels • Linux