DAVID BREWSTER

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EDUCATION

University of Illinois at Urbana-Champaign August 2016 - Present
B.S. Computer Science, Minor in Mathematics

TOOLS

Programing Languages C/C++, Python, TypeScript, F#, Java, Go
Frameworks Numpy, Torch, Node.js, React

PROFESSIONAL EXPERIENCE

Citadel Securities May 2019 - August 2019
Software Engineering Intern *New York, NY*

- Worked on the full stack of a couple of websocket streamers for the Options Market Making (OMM) traders
- Created a profile manager service which is being incorporated into all existing OMM UIs as an alternative to NTFS based storage

Citadel September 2018 - December 2018
Software Engineering Intern *Chicago, IL*

- Developed the full stack of a websocket application for traders that shows aggregated tick data from various stock exchanges
- Created, refactored, and improved performance in a few data loaders
- Added new functionality to a couple of internal market data libraries used throughout the company

Two Sigma IQ May 2018 - August 2018
Software Engineering Intern *New York, NY*

- Supported the automation of data ingestion pipelines by writing various web services
- Helped with quality control on processed datasets by recording statistical trends

Microsoft January 2018 - April 2018
Software Engineering Intern *Redmond, WA*

- Added a visual tool to the Update Management section of the Azure Portal
- Significantly reduced the amount of time taken for users to diagnose failed updates on their computers
- Visual tool aggregates common error messages into a single pattern

Google May 2017 - August 2017
Software (Site Reliability) Engineering Intern *New York, NY*

- Created a tool to predict cache hits/misses on different Memcached instances
- Developed a TensorFlow server that continuously trains on recent cache lookups in order to improve predictions

RESEARCH EXPERIENCE

Biological Computation Group May 2019 - Present
Research Assistant *Champaign, IL*

- Investigating the computational complexity of protein folding under various models

Carl R. Woese Institute for Genomic Biology November 2016 - March 2017
Research Assistant *Champaign, IL*

- Worked in collaboration with Argonne National Laboratory on the Exascale Computing Project (ECP)
- Assisted in developing the ECP Cancer Distributed Learning Environment (ECP-CANDLE) benchmarks

PROGRAMMING SITES

- Project Euler — Computational Mathematics — 140+ problems solved
- Rosalind — Computational Biology — 60+ problems solved

MEMBERSHIPS

- Illinois Programming League (IPL) — team placed 13^{th} out of ~ 100 at 2017 Mid-Central Regional ICPC
- Blacks and African Americans in Computing (BAAC @ Illinois) — member