

ELIZABETH ZOU

Sport Programmer, Poker Fan, & Taekwondo Enthusiast

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EXPERIENCE

Trading Intern

📍 New York City, NY

Jane Street

📅 Jun – Aug 2021

- Used Excel to develop a pricing and trading strategy for an international ETF based on moves in related companies
- Compared financial data from different data sources using Python
- Analyzed market data in Python and implemented tools in Excel for manual and automated trading in simulated stock markets and mock trading games
- Participated in education program including classes on financial markets, historical events, statistics, etc.

Software Engineer Intern

📍 Sunnyvale, CA

Google – gRPC Security

📅 May – Aug 2020

- Designed and implemented a Common Expression Language-based authorization engine using customizable role-based access control in the Go language implementation of gRPC, Google's remote procedure call framework
- Added example code for integration into servers using interceptors
- Wrote unit tests and integration tests, integrated into the Travis CI build

Sales & Trading Intern

📍 New York City, NY

Bank of America – Global Rates Electronic Trading

📅 Jan 2020

- Helped develop an investment strategy that seeks to find the optimal change in Bank of America's treasury inventories at any point in time
- Performed data processing and featurization on raw financial data
- Trained machine learning models to generate a signal that represents the optimal position, fed back into the overall optimization problem

PROJECTS

Simulation of All-Pay Auctions with Convex Costs 📍 MIT 6.853

Computational Simulations and Literature Review 📅 Mar – May 2019

- *Description:* Modeled crowdsourcing situations as all-pay auctions and reviewed past work on approximately optimal mechanisms where bidders' utility functions are convex; ran experiments under a behavioral game theory model and analyzed how well these mechanisms perform in simulations
- *Final Report:* tinyurl.com/6-853-final-report

AWARDS & ACHIEVEMENTS

- Feb 2020 Top 20 in the U.S. for Google Hash Code
- Jan 2019 Battlecode (AI competition) Finalist (Top 16 in the world)
- Apr 2017 National Winner of Lockheed Martin Code Quest
- Apr 2017 8th Place out of 8500 high school teams in picoCTF (Capture The Flag cybersecurity competition sponsored by CMU)
- Mar 2017 Winner of Hewlett-Packard CodeWars
- Feb 2017 USA Computing Olympiad Platinum (highest) Division
- Oct 2017 Advanced 1st Place at The University of Texas at Dallas Battle of the Brains Programming Contest
- Dec 2019 Taekwondo 2nd Dan Black Belt
- Jun 2019 NCTA All-American & Scholastic All-American

EDUCATION

Computer Science & Mathematics

Massachusetts Institute of Technology

📅 Aug 2018 – May 2022 GPA: 4.9

COURSEWORK

Linear Algebra • Discrete Math • Probability • Statistics • Machine Learning • Algorithms • Game Theory • Performance Engineering • Cryptography • Computation Structures • Computer System Engineering • Computer Security • Software Construction

SKILLS

Algorithms Data Structures Docker
OOP Frontend Backend pandas
Jupyter Excel Firebase Bootstrap
Flask AWS Git Android iOS

LANGUAGES

Proficient: Java • Python • Go • C • Bash
Familiar: JavaScript • HTML • CSS • C# • VBA • Swift • SQL • XML • MATLAB

Native or Bilingual Proficiency: Chinese

LEADERSHIP

Tech Chair

Battlecode

📅 Feb 2019 – Present 📍 MIT

- Oversees the 5 tech teams: game design, game engine, client, infrastructure, and website

President

Sport Taekwondo

📅 Aug 2018 – Present 📍 MIT

- Ex-Vice President
- Ex-Tournament Coordinator: organized tournament sign ups and travel
- Made web app to ease tournament registration github.com/wflms20110333/EZTourney
- Organized four-day bubble tea fundraiser amassing almost \$1700 in profit
- Choreographed for, participated in, and helped lead the demonstration team