

Jonathan Hsieh

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EDUCATION

NORTHEASTERN UNIVERSITY

B.S. in Computer Science + Math

Minor in Biochemistry

Sept 2020 - May 2024 | Boston, MA

Khoury College of Computer Sciences

GPA: 3.92 / 4.0

- VP and Contest Director for the Competitive Programming Club

COURSEWORK

UNDERGRADUATE

Algorithms & Data

Object Oriented Design

Logic & Computation

Discrete Structures

Software Development

Reinforcement Learning

Complexity Theory

Statistics and Stochastic Processes

SKILLS

LANGUAGES

Java • Python • Javascript •

C • C++ • Racket • C#

• SQL • HTML • CSS

TECHNOLOGIES

Git • React.js • Vue.js • Node.js •

Express • Keras • Tensorflow •

numpy • matplotlib • pandas •

Firebase • Angular • .NET • Tableau •

MongoDB • Django • Docker

AWARDS

RESEARCH

1st Place at Greater San Diego Science

Fair for Computer Science – Special

Award from IEEE

COMPETITION

• 2021 ICPC World Finalist

• USACO Platinum (Top 200)

• 1st Place Grand Prize Winner at

Stanford Programming Competition

• 5th place at ICPC Northeast Regional

Qualifier • 20th and 30th place at the

ICPC North American Championship

INTERESTS

Graph Theory • Combinatorics •

Badminton • Volleyball • Card Games

EXPERIENCE

Software Developer (Python) | Akuna Capital

Jun 2023 – Aug 2023 | Chicago, IL

- Created tooling that allowed for easy configuration of risk related calculations in the options market
- Wrote highly performant code to publish gigabytes of data per second that allowed traders to better understand Akuna's positional risk

Software Developer | The Boring Company

August 2023 – December 2023 | Las Vegas, NV (expected)

Research Assistant | MIT

Dec 2021 – Aug 2022 | Boston, MA

- Worked under Florian Berg at the Aggregate Confusion Project
- Special thanks in *Aggregate Confusion: The Divergence of ESG Ratings* – one of the top economics papers of 2021

Teaching Assistant | Northeastern University

Sept 2020 – Dec 2021 | Boston, MA

- Led office hours each week to help students and grade problem sets
- Covered dynamic programming, graph theory, divide and conquer, and complexity theory

Turing Instructor | San Diego Math Circle

Sept 2016 – May 2020 | San Diego, CA

- Taught over 100 students concepts in algorithms and problem solving
- Wrote and graded challenging problem-sets on topics relating to competitive programming and theoretical computer science.

PROJECTS

WoodokuSolver | December 2022 |

- Built using TDD principles and implemented Monte-Carlo Tree Search
- Found near-optimal strategy and tested well against other RL agents

Clash Analyzer | July 2020

- Utilized React and REST API to retrieve data about opponents in League of Legends Tournaments
- Formed beautiful visualizations for easy and quick interpretation with Chart.js

Blood Glucose Prediction with RNNs | December 2019

- Used Recurrent Neural Networks to form a model of how blood glucose fluctuates in T1 Diabetes patients.
- Patented algorithm and published paper in the Diabetes Journal of Technology

Cent | September 2019 | website | github

- Formed a model of expenses and costs between groups of friends
- Used .NET API linked to a SQL server database in the backend and Angular for the frontend.

Boolean Implication Network Visualizer | July 2019

- Visualized connections between genes after Boolean analysis for the UCSD Boolean Lab
- Used Python to process connections between thousands of genes