

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

- Treasurer and Contest Director for the Competitive Programming Club

COURSEWORK

UNDERGRADUATE

Algorithms & Data

Object Oriented Design

Logic & Computation

Discrete Structures

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

•USACO Platinum (Top 200)

•1st Place Grand Prize Winner at

Stanford Programming Competition

•5th place at ICPC Northeast Regional Qualifier

•10th place at ICPC East Divisional

Qualifier (Invited to Nationals)

•4th Place at the American Computer Science League

INTERESTS

Graph Theory • Combinatorics •

Badminton • Volleyball • Card Games

EXPERIENCE

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

PROJECTS

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.

ClassMatch | August 2019 | github

- Enabled Canyon Crest Academy students to see who they share classes with easily
- Linked SQL server database to .NET API 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

Online Fish | June 2018 | github

- Allowed people to play the card game Fish against others in real time
- Used WebSockets to communicate to a server and built graphics through p5.js canvas