Jonathan Yin

First-year Student at Yale University

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Education

Yale University

Sept. 2020 - Present

Prospective computer science major, Class of 2024

- Courses: Data Structures and Programming Techniques (CPSC 223), Proofs, Vector Calculus, and Linear Algebra I (MATH 230), The Rhetoric of Revolution (ENGL 114), Intermediate Spanish II (SPAN 140)
- Activities: Yale Computer Society Development Team, Yale Machine Learning, YHack Logistics Team

Acton-Boxborough Regional High School

Sept. 2016 - Jun. 2020

salutatorian, Weighted GPA: 4.8/5.0, class of 2020

- Activities: Science Olympiad Captain, MAHacks V Organizer of Venue & Logistics, ACLS Competition Math Club TA

Experience

Broad Institute of MIT and Harvard - Regev Lab

Jan. 2019 - Present

computational biology researcher

- Developed novel unsupervised deep learning architecture to create more accurate latent molecular representations
- Combined multi-view representation learning with VAEs to improve chemical property predictions
- Submitted work to 2020 NeurIPS workshop, Learning Meaningful Representations of Life (extended abstract)

Beagle Learning

Jul. 2020 - Aug. 2020

software engineering intern

- Developed front-end platform in React, Redux, JavaScript, HTML and CSS.
- Worked in an agile environment with daily product stand-ups and pair programming sessions.

Projects

Food.AI (https://github.com/jonathanyin12/Food.AI)

hackathon project

- Enables simple calorie tracking on mobile devices using real-time object detection for various food classes
- Utilizes a MobileNetV2 SSD architecture trained with transfer learning on the Open Images v4 dataset

PokémonGAN (https://github.com/jonathanyin12/PokemonGAN)

personal project

- Generative adversarial network that synthesizes novel Pokémon from random latent noise
- Implemented in Keras using a modified DCGAN architecture

Flappy.ML (https://github.com/jonathanyin12/Flappy.ML)

personal project

- Genetic algorithm-based reinforcement learning project that beats Flappy Bird
- Algorithms implemented from scratch and used the Processing library for visuals

Skills

Languages/Tools Python, Java, C, HTML, CSS, Git

Frameworks/Libraries React, Keras, Tensorflow, NumPy, Pandas, Matplotlib

Honors & Awards

3x American Invitational Math Exam Qualifier - highest score of 7 (top 0.5% of all testers) *Mar. 2018 - 2020*

USA Computing Olympiad - Gold Division (penultimate division; out of 7,500 participants) *Jan. 2019*

Science Olympiad National Tournament - 3rd place Game On, 5th place Dynamic Planet, 6th place Mousetrap Vehicle (out of 60 national teams; 2500 total teams) *May 2018 - 2019*