Yuval Shechter

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Notable Education:

UMass Amherst BS in Computer Science, 3.965 GPA Class of 2023

- 'Multivariate Calculus', 'Linear Algebra', 'Introductory Statistics', 'Complex Variables', 'Differential Equations' (in progress) classes [Math]
- Completed 'Programming with Data Structures', 'Computer Systems Principles, 'Reasoning Under Uncertainty', 'Introduction to Computation', 'Introduction to Algorithms' (in progress) classes [Computer Science]

Work Experience:

Paid internship at Roivant Sciences Boston, MA/New York City, NY June-August 2021

- Built and implemented parallelized machine learning pipelines for model architectures such as XGBoost, Random Forest, GCNN, and Auto-encoder/decoders
- Interacted heavily with molecular manipulation frameworks like rdkit, chemfp, and deepchem
- Created and parallelized a GPU/CUDA stress-function-optimization self-organizing-map for visualizing high-dimensional molecular fingerprint vectors

Paid internship at Silicon Therapeutics Boston, MA June-August 2020

- Containerized SLURM-capable machine learning runtime environments using Singularity
- Built 3D (using Unity game engine) and 2D projection (using matplotlib) visualization scripts for protein/ligand pharmacophoric descriptors
- Helped build and clean aforementioned dataset for siamese convolutional neural network implemented in pyTorch

Paid internship at Silicon Therapeutics Boston, MA June-August 2019

- Curated datasets from public molecular simulation databases (such as Chembl) using Biopython's BioPDB.
- Implemented machine learning and regression framework for aforementioned datasets in Keras, SKLearn, and Tensorflow.

Paid internship at Harvard LISE Cold Matter lab Cambridge, MA July-August 2018

- Created motorized stage library (Thorlabs Kinesis) to MATLAB wrapper.

Unpaid internship at Harvard LISE Cold Matter lab Cambridge, MA July-August 2017

- Built a MOKE measurement device using Thorlabs hardware, NI DAQ, and MATLAB.

Hackathons: Participated in 8, placed at 5

Hack UMass IX Best AI/ML Hack

- Created a general python library for clustering, visualizing, and reducing high dimensional data using Z-Order curves

MAHacks II 3rd place

- Created "virtual reality school" in Unity using C#.

MetroHacks I Specialized Hardware Award

- Created a remote controlled robot that had a live camera feed to a website using PuTTY,

HTML/CSS, and specialized hardware.

HackNEHS 2nd place

- Created a location based alarm clock using Google Maps API, Android Studio, and Java.

MAHacks IV 3rd place and Specialized Website Award

- Created a website that aggregated news from the opposite side of the political spectrum that you identify with using HTML/CSS, and a custom backend using raw Node.js.

Programming Languages (in order of proficiency):

Python, C, Javascript, MATLAB, Java, Bash and Batch, HTML5 and CSS3, C#

Languages:

- Native proficiency in English and Hebrew