Henry Deutsch

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Education

Johns Hopkins University | Baltimore, MD | June 2025

Classes: Machine Learning, Artificial Intelligence, Intro Algorithms, Approximation Algorithms, Algorithms for Sensor-Based Robotics, Computer Graphics, Data Structures (Java), Intermediate Programming (C, C++), Computer System Fundamentals, Mathematical Foundations for CS, Probability and Statistics, Calc III, Differential Equations and Applications, Physics II

Awards: HopHacks Hackathon 2022: 3rd place (out of 43 teams) [Devpost]

GPA: 3.54

Mamaroneck High School

Activities & Awards: Lead Coder in OCRA (Original Civic Research & Action) program within the Mamaroneck recreation department. 2018 Mamaroneck High School Chemistry Award of Excellence (sole recipient)

SAT: 1540

Skills

Coding: Python, C++, Data Structures and Algorithms, PyTorch, SQL

Web Dev: JavaScript, Node.js, React.js, MongoDB, Express, (MERN stack), HTML, CSS, Dash

Tools: Git, Unix, VS Code

Work Experience

Full Stack Developer, June 2023 — Sept 2023

Worked on a full stack dash app developed for NIST. Developed and iterated on an SQL database for uploading video data, metadata, etc. Developed the UI to support queries on the database and display visualization tools for statistical analyses. Analyses included using neural networks to parse speech in uploaded videos.

Front End Developer, April 2020 — Nov 2021

Coded "HTML emailers" (front-end code rendered in emails) for financial firms and hedge funds (such as North Square Investments, Mesirow) through FinMark Partners. Worked with representatives of these companies to turn design specs into working code.

Freelance Developer, May 2019 — Oct 2021 [GitHub link]

Worked for Vincent Dunn to turn his book, "A Firefighter's Battlespace," into a website. Wrote JS to parse the pdf and create features dynamically. Created interactive UI for quizzing material. The site was up for ~12 months and got 2.7k pageviews per month as of Feb. 2021 (available on GitHub)

Projects

N-Body Galaxy Simulations and ML, Dec 2021 — Aug 2022

Worked with a team studying AI/ML techniques to analyze simulated orbit paths. Used different kinds of autoencoder neural networks to condense an orbit path to a set of core features, used clustering algorithms to analyze and label orbit paths based on its latent space in the autoencoder.

Web Developer in OCRA, 2019

Worked with a team of students to build a website for the Town of Mamaroneck, meant to streamline the process of reserving fields for kids amateur sports leagues.