

Henry Liu

Education History

Massachusetts Academy of Math and Science at WPI – August 2021 to May 2023

SAT – 1570 (800 math, 770 EBRW)

Relevant Coursework – *Advance Physics with Calculus, Advanced Computer Science, Advanced Humanities, Advanced Math Modeling, STEM, Immersion Spanish*

Dual Enrollment at Worcester Polytechnic Institute – December 2021 to May 2023

Relevant coursework – *Matrices and Linear Algebra I, Calculus III and IV, Discrete Mathematics, Probability Theory, Principles of Real Analysis I and II, Principles of Thermodynamics, Program Design, Object-Oriented Design Concepts, Algorithms, Modern British Literature, Introductory Microeconomics*

St. John's High School – September 2019 to June 2021

Headmaster's List Honor Roll

Relevant Coursework – *AP Calculus BC, AP Chemistry, AP European History, Honors Algebra II, Honors Biology, Honors English, Honors Spanish*

Work Experience

Math Tutor at Mathnasium – June 2022 to Present

- Taught extracurricular math to students in grades 2-12
- Provided training and aid to newer employees
- Worked successfully in a collaborative environment while maintaining and improving customer satisfaction

Awards and Honors

- International Math Modeling Contest (IMMC) United States Finalist
- Third place at Worcester Regional Science and Engineering Fair
- Third place in the Massachusetts Society for Medical Research Student Competition
- First place at the Amherst College High School Coding Competition
- PSAT/NMSQT Finalist

Projects

- **A Study on the Use of Neural Networks in Stroke Detection** - August 2021 to May 2022
 - A 9-month-long research project to develop a machine learning model able to detect and classify stroke cases accurately and quickly
- **Creating a Calculator for the Visually Impaired** – February 2022 to May 2022
 - A 3-month-long group engineering project to create a calculator capable of high-level mathematical functions accessible to visually impaired persons
- **EmployBee** – March 2022 to May 2022
 - An app designed for small business owners and managers for task and employee management as well as to aid with employee training

Skills

- Experience working alongside others in a collaborative setting
- Good time management skills focused on improving efficiency and workflow
- Proficient in programming with Python, C++, and Java with focus in algorithms, program design, and artificial intelligence
- Some experience in HTML/CSS for front-end development
- Proficient in using Office 365 software
- Experience in app development with SQL and Android Studio
- Experience with Keras, Tensorflow, Numpy, and other Python libraries