

Isaac A. Taylor

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EDUCATION

Massachusetts Institute of Technology (MIT), Cambridge, MA

Class of 2025

Major: 6-3 (Computer Science and Computer Engineering) GPA: 4.6/5

Relevant Courses: Introduction to Computer Science and Programming in Python, Multivariable Calculus, Fundamentals of Programming, Design for the Web: Languages and User Interfaces

Current Courses: Introduction to Artificial Intelligence, Computation Structures, Mathematics for Computer Science, Introduction to Solid-State Chemistry

Maret School, Washington, DC

Class of 2021

GPA: 3.92/4 SAT 1540 (Math 800, Verbal 740), Cum Laude Society Honors 2021

EXPERIENCE

MIT Undergraduate Research: Web Development for Health Dashboards

June 2022 - Present

Front End Developer

- Improved the front end design of the MIT Mobile Path medical data web dashboard, increasing its usability by grouping data plots, creating a system to hide and select plots, and fixing the datepicker
- Processed mobile data using algorithms such as the Fast Fourier Transform, for use in extracting heart rate from phone accelerometer samples.
- Applied the Vega-lite JavaScript framework to visualize data from CSV files and JSON objects

Design for the Web: Languages and User Interfaces Messenger App Project

April 2022

Creator

- Designed and prototyped an instant messenger web app using figma and user testing.
- Implemented basic messaging functionality using JavaScript from the class backend API framework.
- Created new features such as group text messages, bookmarked messages, and pinned texts.

MIT Momentum 2022: Lockheed Martin

January 2022

Participant

- Wrote python code to program a search and rescue algorithm for automated drone
- Programmed a visual representation of the drone's flight path

Summer Science Program (SSP): Astrophysics

Researcher

- Gathered data to improve knowledge of the orbits of known asteroid 2003 GE42
- Learned relevant math, physics, astronomy, and programming related to asteroid orbits, prepared asteroid images for analysis
- Wrote orbit determination report, a complete scientific paper demonstrating methods and findings

PERSONAL PROJECTS

Fullstack Web/Mobile Text-based Social Media App

Text-based web/mobile social media app based on twitter

- Built with Django/Django Rest Framework, ReactJS, and React Native + React Navigation.
- Hosted on Python Anywhere itaylor24.pythonanywhere.com. Mobile app [repository](#)

Artist Search API Mashup

- Search for an artist and find their top songs and upcoming shows with embedded song previews
- Uses APIs from iTunes and Ticketmaster
- Hosted on Netlify <https://friendly-gelato-37fbc1.netlify.app>

Calculator App

Web based calculator app built with HTML, CSS and Javascript

- Supports memory storage, nested grouping symbols such as parenthesis, fractions, and exponents
- Incorporates math library Math.js, and renders math symbols using MathJax
- Hosted on Netlify <https://resonant-hummingbird-fe1aaf.netlify.app>

ACTIVITIES AND ORGANIZATIONS

MIT Festival Jazz Ensemble First Tenor Saxophone / Social Media Chair, MIT NSBE, MIT Chocolate City

SKILLS

Computer Skills: Git, Github, BitBucket

Programming Skills: Python (4 years), Django (6 months), Javascript (1 year), React.js/React Native (6 months), HTML/CSS (1 year). Exposure to Node.js, Java.

Graphic Design: Photoshop, Illustrator, Figma, Illustration Skills