

# Hector Carrillo

BACHELOR'S OF COMPUTER SCIENCE AND ENGINEERING @ MIT

☎ (832)977-2860 | ✉ hector.carrillo.hmc@gmail.com | 🏠 hector-m-carrillo.netlify.app | 📱 hectormc8426 | 📺 hector-m-carrillo

## Introduction

I've always valued communication. No matter what group I'm in, I always try to establish open - and kind - feedback/suggestions. I believe this is the reason why I've never had a group project horror stories; we all knew what we wanted and what we had to do.

Having such open communication also leads to very productive and insightful sessions of drafting out our project's design. Scratching/graphing out ideas while discussing what should be added/culled is one of my favorite parts of creating software, and I'm pretty good at it.

I highly recommend checking out my [portfolio website](#). It has in-depth descriptions of my classes and internships.

## Education

### Bachelor's Degree in Computer Science and Engineering, Minor in Mathematics

Cambridge, MA

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Aug 2015 - June 2016, Feb 2020 - Feb 2023

- Software Studio  
Developed a replica Twitter with pro-user sanity features and [Music Mentors](#), a novel knowledge sharing website. Vercel + MongoDB.
- Computer Systems Engineering  
Designed and argued the effectiveness of an automated system which would manage electricity for an entire, simplified city.
- Computational Structures  
Developed a CPU from scratch using Minispec (Bluespec derivative)
- Software Construction  
Instilled the importance of test-first programming and well-thought-out documentation.
- Intro to Machine Learning
- Design and Analysis of Algorithms
- Automata, Computability, and Complexity Theory
- Combinatorial Analysis
- Interactive Music Systems

## Experience

### Hubble Financial

Remote

FRONT-END INTERN LEAD

June 2022 - Sept 2022

- Led a team of interns to redesign Hubble Financial's entire website. We, as a team, learned about Ruby on Rails from a senior developer and used that to plan our own roadmap. Encouraging communication and feedback was key as we all had much to learn.
- Figma, Ruby on Rails, HTML, CSS, JavaScript

### Memorang

Remote

SCRAPING ENGINEERING INTERN

January 2021

- Developed an automated system to extract key text from textbooks
- NLP, RegEx, Python

### Tutoring

Pasadena, Texas; Remote

FREELANCE TUTOR

Jan 2017 - Jan 2019

- Helped 11 middle/high school students gain a deeper, fundamental understanding of math/science concepts.
- Everyone has internalized new ways of understanding math/science and most are currently pursuing a related field.

## Skills

**Back-end** Ruby on Rails, Python, Java, C, C++, Git, RESTful APIs, MongoDB

**Front-end** Vue, HTML, TypeScript, CSS

**Languages** English, Spanish

## Interests

My curiosity and empathy influence my interests beyond my work. I am particularly curious about cognitive science, music, physics, and philosophy. Music is simply fun but I love the endless depth of complexity which lies within our own skulls. However, I can't help but view everything through the lens of physics and what the underlying interactions were that led to the perceived result. Then I begin to wonder what it means to perceive and now I'm down a philosophical rabbit hole and I want nothing more than to dig deeper.