Hector Carrillo

BACHELOR'S OF COMPUTER SCIENCE AND ENGINEERING @ MIT

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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*

DATA ENGINEER   *January 2021*

- Developed an automated system to extract questions from textbooks. Input pdf and extract cleaned JSON.
- 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.