

# Jonathan Esteban

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## EDUCATION:

### **Massachusetts Institute of Technology (MIT)**

**Cambridge, MA**

Masters of Engineering Program in Computer Systems

December 2022

Bachelor of Science in Computer Science

June 2020

### **RELEVANT COURSES:**

Software Construction, Full Stack Web Design, Embedded Systems, Computer Architecture, Computer Security, Machine Learning, Python, C/C++, Distributed Systems, Algorithm Design and Analysis, Applied Cryptography, Privacy

**Languages:** Proficient in Python, JavaScript, Java; Familiar with TypeScript, Rust, C#, C++, HTML, CSS, SQL

**Software Tools & Frameworks:** Git, AWS, GCP, Docker, Kubernetes, Terraform, Unix Command-Line, Vue.js, React, Express.js

**Other Skills:** Fully Bilingual (Spanish, English), Photoshop, AutoCAD, Makerspace Tools, Microcontrollers, EE Lab Tools

## WORK AND RESEARCH EXPERIENCE:

### **Cybersecurity at MIT Sloan Research Assistant**

**Cambridge, MA**

*Graduate Thesis Project*

December 2020-May 2022

- Designing a web application to investigate the interaction of automated adversaries operating in simulated enterprise network environments; utilizing open source tools such as Microsoft Battle Sim and D3-force

### **Virtualitics Machine Learning internship**

**Pasadena, CA**

*ML/NLP Team*

June-August 2021

- Leveraged ML.NET to implement Time Series Forecasting; ran benchmarks with synthetic and real-world data and conducted competitor analysis for the feature

### **CSAIL Document Processing Research Assistant**

**Cambridge, MA**

*Graduate Project Coordinator*

May-December 2020

- Collaborated with 8 fintech companies to coordinate internal project proposals relating to the processing of corporate documents using preprocessing techniques and optical character recognition

### **MIT Internet Policy Research Initiative**

**Cambridge, MA**

*Multi-Party Computation Project*

June-December 2019

- Designed the foundation for a web platform that would encapsulate a bare-bones C++ implementation of several cryptographic and multi-party computations
- Setup a MySQL database for the storage of credentials and an SMTP server to handle email tokens
- Followed many security best practices, including salting/hashing passwords, implementing CSRF tokens and CSP headers, as well as creating TLS certificates using Let'sEncrypt

### **Vivint Internship**

**Boston, MA**

*Video Analytics team*

June-August 2018

- Worked on circumventing corporate firewalls using NAT traversing servers for WebRTC applications
- Used Docker, Kubernetes, Terraform, and Google's Cloud Platform to automate the setup of said servers and scale the infrastructure

## LEADERSHIP AND ACTIVITIES:

### **Tennis Intramural Team, captain**

**Cambridge, MA**

- Lead my team into the league's finalist qualifications in the Fall 2015 and Fall 2016 seasons

November 2015

### **Association of Puerto Rican students at MIT events chair**

**Cambridge, MA**

- Served as a student liaison and contributed in organizing a 100+ conference through digital asset creation

March 2016

### **MIT Undergraduate Practice Opportunities Program (UPOP)**

**Cambridge, MA**

November 2016-June 2017

- Completed an intensive one-week professional development workshop taught by esteemed MIT faculty and industry professionals, which explores topics such as effective communication, foundational decision-making, and teamwork