https://github.com/finaris
https://www.madelyntorres.com/

Madelyn E. Torres

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Education

Massachusetts Institute of Technology, Cambridge, MA **September 2016 - June 2020**

- Bachelor of Science in Computer Science and Engineering, GPA: 4.8/5.0
- Coursework: Software Construction (6.031), Computer System Engineering (6.033), Distributed Systems (6.824), Machine Learning (6.034/6.036), Computer Security (6.857/6.858), UI Design (6.813), Algorithms (6.006/6.046)

Employment

Two Sigma, Security Engineer, New York, NY **August 2020 - Present**

- Technical lead of bespoke Static Application Security Testing (SAST) tool, written in *Python*, which helps detect vulnerabilities in code. Involved in numerous code and design reviews to help move the product forward.
- Review code and contribute to discussions and development surrounding our cloud products in *AWS* and *GCP*.
- Member of support rotations for internal security ticket triage and for *Terraform* code reviews for cloud teams.
- Involved in various cultural activities from giving internal technical talks and interviewing potential candidates to providing career and technical mentorship for interns and new hires.

Two Sigma, Software Engineering Intern, New York, NY **May 2019 - August 2019**

- Created a general piece of soon-to-be OSS which can detect and prevent potential phishing attacks.
- Developed a computer vision strategy in *Python* for assisting in phishing prevention.
- Created NGINX configurations which help facilitate and implement the aforementioned anti-phishing strategy.

Google, Software Engineering Intern, Mountain View, CA **June 2018 - August 2018**

- Designed and implemented an automated experimentation framework in *Java* to simplify developer workflow.
- Reduced the number of commits needed for code experimentation by up to 50% (thus saving many engineer hours).
- Provided support for additional data systems and resolved various bugs on the team I worked on.

Google, Engineering Practicum Intern, New York, NY **June 2017 - September 2017**

- Developed a Cron-like service in *Go* which schedules building and testing for internal repositories.
- Created a database schema for parsing, containing, and sending messages on a highly distributed system.
- Added CLI tools, utility functions, and new servers to further support Google infrastructure.

Languages, Technologies, and Skills

- **Languages** - Experienced: Java, Python, Go; Familiar With: C++, HTML, CSS, JavaScript
- **Technologies** - Unix/Linux environments, AWS, GCP, Git
- **Skills** - Software Engineering, System Architecture, Application Security, Cloud Security, User Interfaces, Data Science

Selected Projects

- **Obsessed.** Programming language created with *ANTLR* that can be used to easily perform small-scale analysis on academic grades. Developed and tested corresponding parser in *Python*; CI/CD managed using *Travis CI*.
- **Monthly Automated Reports.** Contracted program which automatically generates monthly reports on mobile traffic analytics in a multiblock neighborhood in Miami using *Python*; the reports are templated using *Jinja2* and *HTML/CSS*.

Additional Experience and Activities

- **Conference Talks**. *How to Spark Your Journey Into Cybersecurity as a Software Engineer* (The Diana Initiative, 2021)
- **Teaching Experience**. Programming (6.009): Undergraduate Teaching Assistant (Spring 2019, Fall 2019), Lab Assistant (Spring 2018, Fall 2018); Algorithms (6.006): Problem Set Grader (Spring 2018, Fall 2019, Spring 2020); Discrete Mathematics (6.042): Problem Set Grader (Fall 2019, Spring 2020)
- **MIT Media Lab - Undergraduate Researcher (2016-2017)**. Developed an online card game with procedurally generated content and a novel AI. Assisted further by QA testing and adjusting the interface using *Java* and *FXML*.
- **MIT IEEE URTC - Vice Chair (2017).** Planned sessions and interacted with over 100 presenters for an IEEE sponsored Undergraduate Research Technology Conference in 2017. Responsible for recruiting new members and sponsors.
- **Honors -** ThinkCyber Fellow (2018); CIW Web Foundations Associate (2016)