# Maya Nigrin

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## EDUCATION:

**Massachusetts Institute of Technology** — Cambridge, MA
*Candidate for B.S Computer Science and Minor in Mathematics* — *Class of 2021*
GPA: 4.7/5.0
Relevant Coursework: Computer Systems Engineering, Ethics in Engineering - AI/CS, Design and Analysis of Algorithms, Software Engineering, Machine Learning, Computer Graphics, Computation Structures, Interconnected Embedded Systems

## EXPERIENCE:

**Microsoft** — Cambridge, MA
*Azure Machine Learning Intern, Responsible AI Team* — *January 2020 - February 2020*
- Used MLflow to create an end-to-end system for ML/AI model creation & integrated an IBM differentially private log. reg. model
- Created a differentially private linear regression model compatible with scikit-learn using the covariance method
- Worked on a differentially private stochastic gradient descent model
- My work was later released as part of an Open Source collaboration between Microsoft and Harvard

**Klaviyo** — Boston, MA
*Software Development Intern* — *June 2019 - August 2019*
- Separated the logic and implementation for changing integration settings and resyncing historical data
- Restructured the code for uploading data from a CSV file, used asynchronous worker tasks and queues to cut down the upload time for 500,000 events from 12 hours to 15 minutes
- Coded instrumentation using Statsd and Python to measure the frequency and duration of different types of API calls

**Quest for Intelligence - The Bridge** — Cambridge, MA
*Research Assistant and Software Developer for the Gaze Coding Project* — *February 2020 - May 2020*
- Completed the CITI Program Human Research: Data or Specimens Only Research - Basic Course
- Set up X11 forwarding from Windows PC to Debian VM, and from the same VM to a docker container in order to run OpenGaze
- Created a script to convert OpenGaze output into gaze label TSVs; all of the code is publicly available and fully documented

*Research Assistant and AI Software Developer for the K-12 Education Initiative* — *February 2019 - February 2020*
- Trained a ProGAN on castle images from MIT's Places2 dataset
- Used Gandissect to analyze the nodes of the network and understand which node generates what
- Helped integrate the results of Gandissect with front-end code that used Scratch to create a kid-friendly program that allows them to interact with the GAN; all of the code is publicly available and fully documented

**Arcadia Funds** — Burlington, MA
*Data Analytics and Visualization Intern* — *January 2019 - February 2019*
- Built a variety of machine learning models to identify potential auto loan borrowers who are likely to default
- Created a program that scraped a web form to collect data on cars' value over time
- Coded in Python and used a variety of data visualization and machine learning tools (Keras, Tensorflow, Sklearn, Pyplot, etc)

**Vivint Smart Home** — Cambridge, MA
*Software Development Intern* — *June 2018 - August 2018*
- Investigated the data pipeline from surveillance cameras to database
- Researched and prototyped new server infrastructure to increase efficiency and lower cost
- Learned usage of Docker, Google Cloud Platform, Terraform, GStreamer, and FFmpeg, among others
- Presented summary of my research and explained my prototype

**Juni Learning** — Boston, MA
*Senior Instructor* — *December 2017 - Present*
- Teach computer science video lessons for children ages 9-16
- Instruct students in Scratch, Java, Python, Web Devt, AP Computer Science A, and USACO Bronze programming classes
- Create tutorial videos that walk through how to create projects in Python, Scratch, or Java

## ACTIVITIES AND LEADERSHIP:

**MIT Muses** - MIT's all-female a cappella group — Cambridge, MA
*Co- Music Director, Executive Board, Auditions Manager, Publicity Chair, Choreography Chair* — *September 2017 - Present*

**Undergraduate Practice Opportunities Program** - MIT professional development program — Cambridge, MA
- Developed communication, leadership, the ability to work in teams, and other career skills — *October 2018 - Present*

## SKILLS:

Python, Java, C++, HTML & CSS, Javascript, Arduino, Microsoft Office, Keras, Tensorflow, Scikit-learn, GCP, and Bash