Emma Qin

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EDUCATION

Massachusetts Institute of Technology   Cambridge, MA
                                                                                        Class of 2024

Bachelor of Science in Mathematics (18) Master of Engineering in Computation and Cognition (6-9).

Past coursework in Mathematics:

> **18.06**: Linear Algebra, **18.404**: Theory of Computation, **18.675**: Theory of Probability,
> **18.615**: Intro Stochastic Processes.

Past coursework in Computer Science:

> **6.046**: Algorithms, **6.854**: Advanced Algorithms, **6.852**: Distributed Algorithms, **6.036**: Intro
> ML, **6.437**: Inference and Information, **9.19**: Psycholinguistics.

ACTIVITIES | EXPERIENCES

MIT UROP · *graph pattern mining*   Jun 2022 –
                                                                                         present

> Worked on improving automated graph pattern mining, currently exploring the use of graph
> neural networks for approximate counting.

MIT UROP · *connectomics*   Jan 2023 –
                                                                                         present

> Analyzing MICrONS connectome data for possible insights on artificial neural network design.

Tiamat · *R&D intern*   Jul 2022 –
                                                                                         Sep 2022

> Read about recent advances in CV, helped fine tune models.

Evolab · *quant intern*   Apr 2021 –
                                                                                         Jul 2021

> Worked on cryptocurrency trading, built various CNN / transformer based models but did not
> overcome transaction fee.

Bytedance · *AI-lab - security intern*   Jun 2020 –
                                                                                         Dec 2020

> Worked on a machine learning pipeline, and a time-series anomaly detection problem, using
> LSTMs and basic graph neural networks and achieved good results.

Web Lab · *4th place team*   Jan 2020

> Worked on a website [em7.herokuapp.com] with 2 teammates.

AWARDS

European Girls' Math Olympiad (EGMO)   Apr 2019

> Gold / 2nd Place

Math Olympiad Program (MOP)   Jun 2018

> MOP Participant (2018)
> USAMO Qualifier (2016, 2018, 2019)

SKILLS | INTERESTS

Languages: Python, Java; some experience with C, JavaScript

Tools: PyTorch, Keras

Interests: AI, algorithms, cognitive sciences, design, education