Edward Jin

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Education

Massachusetts Institute of Technology — Cambridge, MA
B.S. in Chemistry and EECS, GPA: 5.00/5.00 — Fall 2019 - May 2022

- Coursework in Chemistry: Chemical Biology, Physical / Quantum Chemistry, Physical Organic Chemistry, NMR Spectroscopy, Organometallics, Heterocycles, Synthetic Organic Chemistry.
- Coursework in EECS: Embedded Systems, Digital Systems, Microcontrollers, Machine Learning, Advanced Algorithms, Graph and Matrix Algorithms, Theory of Computation. [graduate course]

Experience

Jensen Group — Cambridge, MA
Undergraduate Researcher — Fall 2020 - Present

- Developed a Natural Language Processing Model with Tensorflow for use in classifying organic reactions, which achieved state-of-the-art accuracy. Integrated the model as an API endpoint and GUI into the web-based ASKCOS software, using Docker, Django, and Vue.
- Developing an HPLC data processing tool in Python for use in closed-loop reaction optimization.

MIT 6.046/18.410: Design and Analysis of Algorithms — Cambridge, MA
Teaching Assistant — Spring 2021

- Guided students in fundamentals of algorithmic thinking through weekly problem-solving sessions, and was rated 7.0/7.0 by students in teaching evaluations.
- Wrote, reviewed, and graded exams and problem sets for around 300 students.

Movassaghi Group — Cambridge, MA
Undergraduate Researcher — Fall 2019 - Spring 2020

- Performed a multigram-scale 10-step synthesis of a protected variant of 5-hydroxypiperazic acid, involving temperature control, rotary evaporation, extraction, chromotography, and characterization.
- Confirmed reproducibility of the reactions mentioned in the article "Synthesis of 2,5-Diaryloxadiazinones," as part of the editorial process for the journal *Organic Syntheses*.

Skills

- **Programming Languages:** Python, C++, Java, 8051 Assembly, MATLAB, HTML, Javascript, LaTeX.
- **Laboratory Skills:** Air-Free Techniques, Thin-Layer/Column Chromatography, NMR, IR, MS, UV-Vis.

Awards

- **Putnam Competition, Score 30, Rank 276** — Winter 2019
  An intercollegiate proof-based mathematics competition involving approximately 4000 students, who are mostly math majors. The median score is usually 0-2/120.
- **International Chemistry Olympiad, Gold Medal** — Summer 2019
  A competition in both theoretical and experimental chemistry. Around 70 countries participate in the event, with each country sending up to 4 students. Roughly the top 10% of participants earn gold medals.

Last Updated July 15, 2021.