

# XENIA ZHAO

xzhao31@mit.edu | (480) 621-1112 | 410 Memorial Dr. Cambridge, MA 02139

## EDUCATION

*Massachusetts Institute of Technology*

2021-2025

- Candidate for Bachelor of Science in Computer Science and Bachelor of Science in Economics
- Relevant courses: Fundamentals of Programming, Computational Thinking and Data Analysis, Math for Computer Science, Statistical Methods in Economics, Microeconomics, Macroeconomics
- GPA: 4.8/5.0

## RESEARCH

*Populating 'Digital Twins' from Public Data Sources to Support Integrated Urban Modeling*

Sep 2022-Present

- Examined datasets in QGIS to create a comprehensive view of urban activity
- Used Google Places API to extract points of interest in the Metro Boston area

*Options for Decarbonizing Aviation: an assessment of air transportation demand and fuel consumption*

Jan 2022-May 2022

- Used Excel to model passenger aviation flows by geographic region
- With MIT senior research scientist Sergey Paltsev at the MIT Energy Initiative

*Rethinking Food Waste: optimizing the food bank supply chain to tackle food waste and food insecurity*

Aug 2020-Apr 2021

- Used Python and GAMS optimization software to balance economic, environmental, and social goals
- Won 2<sup>nd</sup> at International Science and Engineering Fair

*Modeling Plastic Pollution: a system dynamics approach to understand and control macroscopic plastic flow*

Apr 2019-May 2020

- Used queueing theory to predict plastic waste in the ocean and estimate cleanup times
- Paper (first author) presented at 2<sup>nd</sup> Global Symposium on Waste Plastic

## WORK EXPERIENCE

*World Wildlife Fund (WWF) Sustainability and Innovation Intern*

Jun 2022-Aug 2022

- Designed original project on tracking scope 3 carbon emissions through agrifood supply chains
- Assessed impacts of different accounting frameworks for suppliers, consumers, and investors
- Examined and refined methodology for calculations of carbon emissions from land use change

*ICAN AZ*

Oct 2018-Aug 2020

- Provided a safe, educational environment and helped at-risk youth build better futures
- Hosted summer math boot camp and donated \$1500 proceeds to ICAN
- Sewed and donated 100+ masks during pandemic

## LEADERSHIP EXPERIENCE

*Women Business Leaders*

Sep 2022-Present

- Learn and practice skills in entrepreneurship, consulting, and finance
- Organize high school conference, introducing topics in business to students in underrepresented genders

*Undergraduate Association Committee on Sustainability*

Feb 2022-Present

- Involve the broader undergraduate community in current environmental and climate policy
- Maintain a community garden on campus to promote green spaces and gardening

*Asian American Initiative Zine Lead*

Jan 2022-Present

- Organize campus-wide workshops and solicit submissions from Asian American visual and literary artists
- Design, compile, and print 500 copies of zine, distribute to wider MIT community

## DISTINCTIONS

*American Invitational Mathematics Examination (AIME) Qualifier*

2020, 2021

*US Physics Olympiad (USAPhO) Qualifier*

2020

*National Merit Finalist and Scholarship Recipient*

2021

## SKILLS

- Technical: Python (4/5), Excel (4/5), QGIS (3/5), SQL (3/5)
- Languages: English (5/5), Mandarin (4/5), Spanish (3/5)