

# Jonathan Huang

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## Education

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- Massachusetts Institute of Technology** (GPA: 5.0/5.0) 08/2021 – present
- M.Eng student in Electrical Engineering and Computer Science
  - S.B., Electrical Engineering and Computer Science (2025), Biology (2025)
  - Selected EECS Coursework: Advanced Algorithms (6.521), Circuit Design (6.208), Convex Optimization (6.722), Digital Design (6.205, 6.S965), OS (6.181), RF (6.230), Statistical Inference (6.780, 6.781), VLSI (6.601)
  - Other Selected Coursework: Immunology (7.23), Mammalian Development and Genetics (7.82), Quantum Computation (8.370), Quantum Physics III (8.06), Theory of Probability (18.675)

## Selected Projects

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- FPGA-based GPS Receiver** Fall 2025
- Read navigation data from GPS signals post-acquisition on the Xilinx RFSoC.
- Takelma Language Dictionary** 2025
- Designed a dictionary website with Next.js for the Cow Creek Band of Umpqua Tribe of Indians.
- FPGA-based Vowel Detector** Fall 2024
- Built a real-time speech recognition device for vowels on the Real Device Urbana Board.
- RF Spectrophotometer** Spring 2023
- Built a cavity resonator and antenna to measure the concentration of sugar solution.

## Work Experience

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- Jane Street** | Quantitative Trading Intern 06/2025 – 08/2025
- Developed models and strategies to maximize returns in various markets.
- Coley Lab** | Undergraduate Researcher 11/2023 – 01/2025
- Investigated computational approaches to efficiently search combinatorial synthesis libraries.
- Weng Lab** | Undergraduate Researcher 06/2022 – 10/2023
- Investigated the synthesis pathway and industrial production of withanolides.

## Publications

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- Reynolds, E., Trauger, M., Li, F.S., **Huang, J.**, Moss, T., Christ, B., Xu, M., Knoch, E. and Weng, J.K. Elucidation of gene clusters underlying withanolide biosynthesis in ashwagandha through yeast metabolic engineering. *Nature Plants* (2026).

## Awards

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<b>International Olympiad of Linguistics Gold Medal</b> (Rank 3 individual)	2021
<b>USA Biolympiad Silver Medalist</b> (Top 8)	2021
<b>USA Junior Math Olympiad Honorable Mention</b> (Top 24)	2019

## Teaching

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<b>MIT 6.780 (Inference and Information)</b>   Teaching Assistant	Spring 2026
<b>MIT 18.404 (Theory of Computation)</b>   Teaching Assistant	Fall 2023, 2024, 2025
<b>MIT 18.701 (Algebra I)</b>   Teaching Assistant	Fall 2022

## Activities

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<b>MIT Quizbowl</b>   Vice President (2025)	08/2021 – present
<b>MIT Science Bowl</b>   Tournament Director, NSB Regional Coordinator (2025)	08/2021 – present
<b>Next House Exec Board</b>	01/2022 – 01/2025
<b>NACLO Training Committee</b>   Problem Reviewer	08/2021 – 08/2024