

MICHELLE HAN

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EDUCATION

Massachusetts Institute of Technology (MIT)

Cambridge, MA | June 2025 – May 2029 | GPA: 4.7/5.0

B.S. in Computer Science, Economics, & Data Science; B.S. in Mathematics

- **Coursework:** Economic Applications of Game Theory, Microeconomics & Public Policy, Intro to Machine Learning, Probability and Random Variables, Optimization Methods in Business Analytics, Intro to Algorithms, Linear Algebra & Optimization
- **Activities:** Society of Women Engineers (VP of Tech), Women in EECS (Dev Chair), Club Tennis, Sigma Kappa

EXPERIENCE

Software Engineering Intern | California ISO

Sacramento, CA | June 2026 – Sept. 2026

- Develop end-to-end validation workflows for wholesale energy market systems, testing real-time bids, dispatch outputs, transaction processing, and grid-reliability constraints across complex market scenarios.
- Build Python and Selenium regression suites integrated into CI/CD pipelines, automating repeatable validation of market applications, energy transaction APIs, and frequently changing business logic.
- Investigate discrepancies between expected and observed outputs across market-integration cycles, using Jira and test evidence to isolate data and logic defects with engineers before production deployment.

Undergraduate Researcher | Multisensory Intelligence Group, MIT Media Lab

Cambridge, MA | June 2025 – Aug. 2026

- Ran a randomized study (N=128) testing whether LLM suggestion quality ratings predict downstream usage, via TF-IDF and sentence-embedding similarity.
- Benchmarked LLM-as-judge against human ratings, showing each captures distinct behaviorally predictive signals.
- Built a full-stack voice journaling system with speech-to-text and LLM-guided counterfactual prompts; ran a 15-day mixed-methods field study, published at ACM CHI 2026.
- Built pandas/NumPy pipelines for longitudinal behavioral data; analyzed conditions with mixed-effects models.

Instructor Assistant | Kode With Klossy

Remote | Mar. 2025 – Sept. 2025

- Co-led 20 scholars through a full-stack web development curriculum covering HTML, CSS, JavaScript, and UI/UX, facilitating hands-on coding sessions.

Finance Academy Scholar | Morgan Stanley

Remote | Oct. 2024 – Apr. 2025

- Advanced to capstone competition semifinals; pitched IPO strategy and share allocation model to Reddit executives, balancing investor demand, pricing considerations, and long-term market positioning.
- Analyzed case studies, built financial models, and collaborated on team-based projects focused on sustainable finance, entrepreneurship, and capital markets.

PROJECTS

Point-Level Tennis Pricing Model

MIT Sports Lab | Aug 2026 – Present

- Building a Python Markov-chain engine computing live match-win probabilities from point-level serve/return rates via exact dynamic programming over the full score-state space.
- Training online serve/return ratings across 102,077 ATP/WTa matches in a leakage-free chronological replay harness; benchmarking model fair values against devigged closing market prices on ~98k matches, advised by Prof. Anette Hosoi.

AI-Powered Self-Reflection System for Adaptive Change [link]

ACM CHI 2026 | March 2026

- Investigated how generative AI can support personalized self-reflection by transforming voice journals into actionable counterfactuals and adaptive coping strategies.
- Developed a full-stack AI-powered journaling system integrating speech-to-text, LLM-generated counterfactual reflections, and personalized action planning; evaluated in a 15-day in-the-wild mixed-methods study and accepted to ACM CHI 2026.

Reflexion [link]

2025 Apple Swift Student Challenge Winner | Feb. 2025

- Developed a multimodal Swift app supporting 7 journaling formats, including text, audio, video, and sketching, uploads, and quizzes to make reflection more accessible.
- Integrated AI-assisted analysis across journal modalities, including sentiment and mood detection, handwriting recognition, and visual analysis to help users identify patterns in their reflections; invited to present at Apple's NYC Showcase.

AWARDS & PROGRAMS

- **Bain First Forward Participant**, Bain & Company May 2026
- **Susquehanna Showdown Poker Tournament Qualifier**, Susquehanna Mar. 2026
- **4th Place @ MIT x Susquehanna Queens' Full House Poker Tournament**, Susquehanna Feb. 2026
- **Jane Street WiSE and NCWIT Invitee**, Jane Street June 2025
- **Swift Student Challenge Winner & Distinguished Showcase Presenter**, Apple Mar. 2025
- **3x AIME Qualifier and Math Prize for Girls Qualifier**, Mathematical Association of America Nov. 2024

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, Swift, HTML/CSS

Libraries & Tools: pandas, NumPy, scikit-learn, Matplotlib, Seaborn, Flask, ReactJS, Selenium, Git, GitHub, Power BI, Excel