Christina X Ji

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Education

PhD. *MIT computer science.* 2024
Thesis: Characterizing variation in healthcare across time and providers using machine learning

MEng. *MIT computer science.* GPA: 5.0/5.0 2019
Thesis: Modeling progression of Parkinson's disease

BS. *MIT computer science.* Minor: Mathematics. GPA: 4.9/5.0 2019

Experience

MIT computer science PhD student Sep 2019 – Aug 2024
- Built large language models to predict patient trajectories
- Evaluated off-policy reinforcement learning policies
- Analyzed real-world data with causal inference and statistics
- Worked with PyTorch, huggingface, Python, SQL, and R

Genesis Therapeutics machine learning intern Jun 2023 – Aug 2023
- Built language models and diffusion-based graph neural networks to generate molecules for specific drug targets

LinkedIn data science intern Jun 2021 – Aug 2021
- Performed causal analyses to measure effect of LinkedIn Learning features on engagement and revenue

Previous internships at Philips healthcare, IBM research, Koch Institute for cancer research, and Janssen pharmaceuticals

Papers

Assessing variation in first-line type 2 diabetes treatment across eGFR levels and providers. **CX Ji**, S Blecker, M Oberst, MC Shih, L Horwitz, and D Sontag. Under review. 2024.

Seq-to-final: a benchmark for tuning from sequential distributions to a final time point. **CX Ji**, AM Alaa, and D Sontag. Under review. 2024.

Large-scale study of temporal shift in health insurance claims. **CX Ji**, AM Alaa, and D Sontag. CHIL 2023. Oral spotlight.

Finding regions of heterogeneity in decision-making via expected conditional covariance. J Lim*, **CX Ji***, M Oberst*, S Blecker, L Horwitz, and D Sontag. NeurIPS 2021. *equal contribution

Trajectory inspection: a method for iterative clinician-driven design of reinforcement learning studies. **CX Ji***, M Oberst*, S Kanjilal, and D Sontag. AMIA virtual informatics summit 2021. *equal contribution

Courses

- Machine learning, Bayesian inference, Optimization, Software, Econometrics
- Biochemistry, Organic chemistry, Cell biology, Cancer biology, Genetics
- Teaching assistant for Introduction to Statistical Data Analysis
- Instructor for Introduction to Statistical Hypothesis Testing

Awards & Service

- Teaching awards from MIT EECS & School of Engineering 2024
- Mentored undergraduate and master's research, PhD applicants 2020 – 2023
- Organized MIT EECS PhD orientation and visit days 2020 – 2022