

JIAYI WU

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Google Scholar ◇ Github ◇ LinkedIn

EDUCATION

Brown University

Sept 2024 - May 2028 (expected)

B.Sc. Mathematics-Computer Science, B.A. International and Public Affairs

GPA: 4.0/4.0

Related courses: *CSCI 2470 Deep Learning, CSCI 2952W Critical Data and Machine Learning Studies, CSCI 1715 Formal Proof and Verifications, CSCI 1570 Design and Analysis of Algorithms, CSCI 1952A Human-AI Interaction, APMA 1655 Honors Statistical Inference I, MATH 1530 Abstract Algebra, POLS 1460 International Political Economy, MCM 0903E Capitalism, Computers, and the Era of AI*

Shanghai Qibao Dwight High School

Sept 2021 - June 2024

International Baccalaureate Diploma Programme (IBDP)

GPA: 4.0/4.0

Related courses: *Mathematics Analysis and Approaches HL, Computer Science HL, History HL, Theory of Knowledge, Global Politics-History Extended Essay*

RESEARCH INTERESTS

1. Complex systems and sociotechnical infrastructure/governance (for urban landscapes and workplace algorithmic management in particular)
2. AI alignment and technical governance, featuring fairness, interpretability, and (participatory) auditing
3. Symbolic systems, multi-agent systems for language agents

ACADEMIC EXPERIENCE

Longitudinal LLM Auditing on Election Responses

April 2025 - Present

Supervisors: Prof. Sarah Cen and Prof. Chara Podimata

Massachusetts Institute of Technology

Affiliation: MIT Madry Lab, Stanford RegLab

Agent City Hall: Cognitive Motifs for Synthetic Urban Agents [1] [2]

Mar 2025 - Present

Supervisors: Prof. Kent Larson, Prof. Deb Roy, Jiajie Li

Massachusetts Institute of Technology

Affiliation: MIT Media Lab, City Science Group

Atypical Combination in Computational Sciences

Feb 2025 - Present

Supervisors: Prof. Huilian Sophie Qiu

Northwestern University

Affiliation: Northwestern Institute on Complex Systems (NICO), Uzzi Lab

Collective Data Stewardship and Governance

Feb 2025 - Present

Supervisors: Prof. Vera Khovanskaya

University of Toronto

Affiliation: Faculty of Information, Labour Process and Technology Lab

AI Fairness Research, Socially Responsible Computing Handbook

Dec 2024 - April 2025

Supervisors: Prof. Suresh Venkatasubramanian and Prof. Julia Netter

Brown University

Affiliation: Brown CS, Center for Technological Responsibility (CNTR)

Critical Auditing of Food-Delivery Algorithmic Management [3]

Supervisors: Prof. Harini Suresh

Affiliation: Brown CS, the Data in Society Collective (DISCO Lab)

Nov 2024 - Present

Brown University

PROFESSIONAL EXPERIENCE

Data Engineer Internship

Supervisors: Delaney Dill, Nelson Ngouenet

Affiliation: P1.UVWP The Water Purifier

Jan 2025 - Present

GLBL Foundation

Data Science Internship

Supervisors: Angelos Chronis

July 2024 - Sept 2024

Infrared City

PROJECT EXPERIENCE

ConnectRI Broadband Navigator Accessibility Audit

Affiliation: Digital Equity Initiative

Feb 2025 - May 2025

Brown Initiative for Policy

AsyLex Refugee Claim Entity Extraction & Judgement Prediction

Affiliation: Ignite Fellowship

Sept 2024 - Mar 2025

AI4ALL

Adversarial Connect4 AI Solver with Minimax and Pruning

Affiliation: CSCI 0170

Nov 2024 - Dec 2024

Brown University

Open-Sourced Android Mobile App for Education Resource Sharing

Affiliation: Founder, Technology Board

Nov 2021 - June 2023

Converter Education Initiative

Modeling Honeybee Population Dynamics

Affiliation: Team 12736

Feb 2022 - Feb 2023

High School Mathematical Contest in Modeling (HiMCM)

PUBLICATIONS

- [1] C. J. Li, Z. Mo, K. I. Zhao, *et al.*, “The grammar of thought in generative minds: Cognitive motifs as primitives of human-like reasoning,” submitting to Conference on Neural Information Processing Systems (NeurIPS) 2025.
- [2] C. J. Li, Z. Mo, K. I. Zhao, *et al.*, “Agent city hall: Capturing and replicating human thought processes, opinions, and sentiments in response to rezoning,” submitting to Nature Machine Intelligence.
- [3] **Jiayi Wu** and H. Suresh, “Toward deliverer-centric food delivery algorithmic management: Cross-platforms case studies, computational approaches, and regulatory alternatives,” submitting to ACM Conference on Fairness, Accountability, and Transparency (FAccT) 2026.

ACHIEVEMENTS

Chairman Scholarship (5%), Shanghai Qibao Dwight High School

Spring 2024

Selection for Pioneer Journal Publication (1.8%), Pioneer Academics

Fall 2023

Academic Excellence Scholarship First Place (1%), Shanghai Qibao Dwight High School

Spring 2023

Meritourious Award (15%), COMAP's High School Mathematical Contest in Modeling

Spring 2023

Global First Place Award (5%), China Thinks Big Competition(CTB)

Fall 2022

SKILLS/MISCELLANEOUS

Programming Languages

Java, Python, JavaScript, HTML/CSS, SQL/MySQL, MATLAB, XML, ReasonML, Racket, C/C++, Processing

Programming Tools

PyTorch, Tensorflow, Sklearn, Pandas, Numpy, Vite, Vue.js, D3.js, Plotly, Android Studio, Microsoft Excel, Git/GitHub, Linux

Miscellaneous

Zine/Collage-Making, Reading (Historical/Science Fiction)