

Yichao Jin

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RESEARCH PROFILE

Fields: Health Economics, Behavioral Economics, **In-silico Behavioral Science (Computational Neuroscience)**, Public Policy Analysis, Technology Governance.

Methods: Discrete Choice Experiments (DCE), Structural Modeling, **Neuro-computational Models**, Applied Econometrics (Causal Inference), Policy Simulation (SEIR), Machine Learning.

EDUCATION

University of Texas at Dallas Expected May 2026

Ph.D. in Public Policy and Political Economy

- *Dissertation:* “Dynamics of Intertemporal Choice in Vaccination Timing: A DCE Approach”

- *Committee:* [Dohyeong Kim](#) (Chair), [Richard Scotch](#), [Soyoung Kwon](#), [Khai Chiong](#).

- *Distinction:* Dean of Graduate Education Dissertation Research Award (2025).

University of Texas at Dallas Expected May 2026

M.S. in Social Data Analytics and Research

University of Queensland 2019

Master of Development Economics

University of California, Riverside 2017

B.A. in Economics

RESEARCH AGENDA & WORKING PAPERS

[Postdoctoral Vision]: **Behavioral AI Architecture via Brain Foundation Models** (2026–Present)

- **Innovation:** Developing an *In-silico* pipeline using **TRIBE v2** (a multimodal fMRI foundation model) to bridge behavioral structural parameters with neural response patterns.
- **Impact:** Creating a "Digital Twin" of the human brain to pre-screen policy interventions (message framing, incentive design) in a digital environment, significantly reducing the cost and risk of field RCTs.

1. “How Waiting Time Shapes Preventive Health Behavior: Evidence from Vaccination Decisions” (with [Dohyeong Kim](#))

Job Market Paper | *Under Review at Journal of Behavioral Medicine*

[Link to Draft](#) | [Research Repo](#)

- **Research Question:** How do administrative delays (waiting time) and institutional trust interact to create behavioral barriers to preventive health decisions?
- **Approach:** Recovered formal time-preference parameters (hyperbolic and exponential discount rates) for delayed protection using a structural Discrete Choice Experiment (DCE, N=1,027).
- **Main Findings:** Identified that individuals with lower institutional trust are significantly more sensitive to delay friction. Heterogeneity analysis reveals that wait-time costs are disproportionately borne by rural and less-educated populations.
- **Policy Relevance:** Demonstrates that reducing administrative delay is as critical for health equity as financial incentives, providing a behavioral roadmap for trust-deficient populations.

2. “**How CEO Succession Influences Firm AI Innovation: The Role of Academic Experience**” (with Zhimin Tian and Yu Xiang)
Under Review at Journal of Business Research
 - **Research Question:** Does the academic background of incoming CEOs drive AI-related innovation in high-tech firms?
 - **Approach:** Analyzed 1,776 CEO succession events to identify shifts in innovation trajectory linked to academic credentials and experience.
3. “**The Price of Waiting: Evidence on Cash–Time Trade-Offs in Vaccination Time Discount**”
In Preparation — Targeting Social Science & Medicine.

PROFESSIONAL EXPERIENCE

Doctoral Researcher, Spatial Health AI Research Partnership (SHARP) 2022 – Present
UT Dallas, School of Economic, Political and Policy Sciences

- Lead researcher for interdisciplinary projects at the intersection of AI, geospatial analytics, and health policy.
- Developed large-scale computational simulations (R, Python) to evaluate pandemic preparedness.

Graduate Researcher, Behavioral Health Economics Laboratory 2021 – Present
UT Dallas

- Designed and executed large-scale behavioral experiments (N=1,027) analyzing risk-weighted health decisions and institutional trust.

TEACHING

Teaching Assistant, University of Texas at Dallas 2021 – Present

- **Quantitative Methods for Policy Analysis (Graduate):** Led Econometrics labs; specialized in R programming, regression analysis, and causal inference for policy data.
- **Health Economics & Public Policy (Undergraduate):** Focused on health market failures and the economics of preventive care.
- **Public Policy Analysis:** Mentored students in drafting evidence-based policy memos and program evaluation frameworks.

CONFERENCES & HONORS

- **ASHEcon 2026** (Minneapolis, MN): The Shadow Price of Vaccination Delay: Evidence From a Case Study from Wuhan, China (Submitted).
- **APPAM Fall Research Conference (2025):** Estimating Time Discount Rate for Vaccination.
- **UT Dallas Graduate Research Symposium (2025):** Modeling Vaccination Decisions with Hyperbolic Discounting.
- **Dean of Graduate Education Dissertation Research Award (2025)**, UT Dallas.
- **Betty & Gifford Johnson Graduate Travel Award (2025)**, UT Dallas.
- **Omicron Delta Epsilon**, International Honor Society for Economics.

SKILLS & CERTIFICATIONS

Econometrics: Mixed Logit (MXL), Latent Class Models (LCM), Structural Modeling, Causal Inference.
Neuro-Computing: Foundation Models (TRIBE v2), Predictive Neural Mapping (fMRI-to-Voxel), Behavioral AI Agents.

Computing: R, Stata (Advanced), Python, MATLAB, \LaTeX , SQL, GIS.

Certificates: Stanford Graduate Certificate in AI; CITI Human Subjects Protection.

REFERENCES

Dohyeong Kim (Chair)

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