# Mengqi Wei

**Third-Year Undergraduate in Quantitative Economics and Finance**

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## Education

**Xi'an Jiaotong University (XJTU), Jinhe Center for Economic Research** **2025.09 – Present**

Third-Year Undergraduate in Quantitative Economics and Finance Expected June 2028

Sophomore Year GPA: **90.73 / 100** Sophomore Rank: **1 / 22**

**Xi'an Jiaotong University (XJTU), School of Mathematics and Statistics** **2024.09 – 2025.07**

First-Year Undergraduate in Mathematics

Freshman Year GPA: **87.81 / 100** Freshman Rank: **3 / 109**

**Xi'an Jiaotong University (XJTU), Qian Xuesen College** **2022.09 – 2024.07**

Pre-College, Special Class for the Gifted Young (SCGY)

Pre-College GPA: **87.92 / 100** Overall Rank: **54 / 193**

## Research Interests

- AI Exposure Measurement, Impacts of AI on Firm Decision-Making and Market Structure
- Industrial Organization (IO) and Empirical IO
- Macroeconomics and Macro-Finance

## Working Papers & Research Projects

**Adaptive Adjustment of Higher Education Majors Under LLM Shocks: Theoretical Modeling, Exposure Measurement, and Continuous DID Estimation** **2026.02 – Present**

*Research Training (Advised by Prof. Xiaodong Chen and Prof. Xiaoliang Yang) · Principal Investigator*

- Extended the Acemoglu & Restrepo (2018) task framework to higher education supply; constructed a crosswalk mapping 101 occupational LLM exposures to 889 undergraduate majors.
- Built a micro panel from 2015–2024 national major filings and 4.34 million provincial enrollment records; evaluated causal impacts using Continuous DID, Causal Forests, and trend-adjusted robustness checks.

**Firm Decision-Making and Market Structure Under Token and AI Agent Shocks: Cost Restructuring, Competitive Pass-Through, and Welfare Implications** **2026**

*Independent Research / Working Paper*

- Abstracted Tokens and AI Agents as on-demand heterogeneous inputs, restructuring firm-level marginal and fixed cost functions.
- Modeled market concentration, competitive dynamics, and consumer welfare under Cournot and Bertrand oligopolies with endogenous entry/exit and search frictions.

**Claim2Value: Financial AI Agent for Technical Claim Verification and Dynamic Valuation in Embodied AI Supply Chains** **2026.08 – 2026.09**

*PKU Financial AI Agent Competition · Economic & Financial Reasoning Lead / Core Developer*

- Covered 11 core listed firms in humanoid robotics/embodied AI; built an end-to-end agent pipeline from unstructured technical claim extraction to multi-source verification and financial mapping.
- Benchmarked 51 domain technical claims; structured causal chains ("technical metric → capacity/productivity → pricing/cost → gross margin") to refute non-causal hype; developed dynamic three-scenario valuation models.

**Perceived Age Discrimination, Psychological Coping, and Policy Demands of Job Seekers Aged 35+** **2025.12 – 2026.04**

*National "Challenge Cup" Academic Competition · Core Researcher*

- Cleaned primary survey microdata; performed Principal Component Analysis (PCA) on coping strategies and utilized quantile regressions to test asymmetric penalties across wage distributions.

**Heterogeneous Energy Price Pass-Through Across Consumption Structures Under Geopolitical Shocks** **2026.04 – Present**

*Undergraduate Innovation Research Program · Core Researcher*

- Compiled cross-country macroeconomic time-series panels to evaluate supply-side pass-through elasticities under geopolitical disruptions.

**AI4Learning Econ: Open-Source Lecture Notes and Academic Repository** **2025.08 – Present**

*Independent Open-Source Project ·* `https://aeiou0123.github.io`

- Built and maintained an academic homepage curating structured lecture notes, exercise solutions, and course working papers covering Mathematical Analysis, Intermediate Micro/Macro, Econometrics, Game Theory, and Industrial Organization.

## Professional Experience

**CIB Research (Industrial Research)** **2026.07 – 2026.09**

*Macro Market Department · Macroeconomic Research Intern*

- Tracked high-frequency macro indicators and examined structural dynamics of China's "K-shaped" economic divergence.
- Applied Ray Dalio's debt cycle framework to examine structural dynamics and deleveraging in the property market.
- Monitored China-Europe trade flows and EU regulatory changes to evaluate macro and financial market impacts.

## Coursework & Academic Preparation

**Core Economics & Finance:** Intermediate Macroeconomics (**100**), Principles of Accounting (**96**), Intermediate Microeconomics (**95**), Principles of Finance (**94**), Financial Markets & Institutions (**92**)

**Mathematics & Statistics:** Advanced Algebra & Analytic Geometry II (**93**), Applied Statistics (**93**), Probability Theory & Mathematical Statistics (**92**), University Physics (**90**), Mathematical Analysis (**90/86**)

**Advanced & Self-Study:** Machine Learning, Deep Learning, Reinforcement Learning, Industrial Organization, Operations Research, Econometrics

## Honors & Awards

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|---|---|
| National Scholarship (Ministry of Education, Top Undergraduate Honor) | 2025 – 2026 |
| First-Class Academic Scholarship, Xi'an Jiaotong University | 2024 – 2025 |
| National College Students Statistical Modeling Competition, **Shaanxi Provincial 1st Prize** | 2026 |
| National Digital Business Simulation Sandbox Competition for Universities, **National 3rd Prize** | 2026 |

## Skills & Languages

- **Coding & Econometric Tools**: Stata, Python, LaTeX, C (Basic working proficiency).
- **AI-Native Workflows**: Comfortable driving AI-assisted research and engineering workflows.
- **Languages**: Mandarin Chinese (Native); English (CET-6: **602 / 710**).