

Zhouzhou Gu

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EDUCATION

- Peking University** Beijing, China
B.S. in Physics, B.A. in Economics. GPA: 3.80 (overall), 3.91/4.0 (Major) Sep. 2018 - June 2022
Featured Courses: Analysis I&II, Function of Real Variables, Complex Analysis, PhD Stochastic Analysis, PhD Group Theory, Partial Differential Equations, Ordinary Differential Equations, Linear Algebra, Probability and Statistics, Numerical Analysis; PhD Macro Theory I&II (at Princeton), PhD Micro Theory I&II, PhD Econometrics I, PhD Macro-Finance & Monetary Economics & Macroeconomics With Agent Heterogeneity (at Princeton), PhD Corporate Finance Theory, PhD Contract Theory, Industrial Organization

CURRENT POSITION

- Senior Research Specialist (Predoc), Bendheim Center for Finance, Princeton University** NJ, USA
Advisor: Prof. [Jonathan E. Payne](#) & Prof. [Markus K. Brunnermeier](#). Sep. 2022 - Present
Field: *Macro-finance, Heterogeneous Agent, ESG, Machine learning.*

RESEARCH INTEREST

Macro-finance, Macroeconomics, Heterogeneous Agent, Banking

RESEARCH PAPERS

- Deep Learning Solutions to Master Equations for Continuous Time Heterogeneous Agent Macroeconomic Models (with [Jonathan E. Payne](#), [Mathieu Laurière](#) and [Sebastian Merkel](#)).
- Deep Learning for Solving and Estimating Dynamic Macro-Finance Models (with [Wenhao Li](#), [Lu Lu](#), Benjamin Fan, Eddie Qiao and Anran Jiao).
- Bank Opacity, Leverage Spirals and Optimal Regulation (with [Haotian Xiang](#)). *Draft coming soon.*

SELECTED RESEARCH EXPERIENCE

- University of Southern California, Marshall School of Business** Remote
Research Assistant to Prof. [Wenhao Li](#) June 2021 - June 2022
- Department of Physics, Peking University** Beijing, China
Independent Research supervised by Prof. [Xuzong Chen](#) Feb. 2020 - Oct. 2021
Honor Thesis: Essays on Ultra-cold Atom Physics and Dynamic Quantum Phase Transition

SELECTED HONORS AND AWARDS

- First Prize in National Undergraduate Math Contest 2021
- Chinese Economic Research Scholarship 2021
- Benz Scholarship (Top 5%) 2021
- Merit Student (Top 5%) 2021, 2020
- Peking University First Prize Scholarship (Top 2%) 2020
- Academic Excellent Award 2019
- Gold Medal in 19th Asian Physics Olympiad 2018
- Gold Medal in 34th Chinese Physics Olympiad (selected to *Chinese National Team*) 2017

ADDITIONAL EXPERIENCE

- Teaching Assistant for Undergraduate Microeconomic Theory, Peking University** Beijing, China
Instructor: Prof. [Xin Wang](#) Fall 2021
- Instructor and Developer for Junior Physics Lab, Peking University** Beijing, China
Topic: Quantum Interference and Entanglement 2020

ADDITIONAL INFORMATION

- **Programming.** Python (Pytorch), R, C++, Matlab, L^AT_EX, Julia, Stata
- **Language.** Chinese (native), English (fluent)
- **Test Scores.** TOEFL: 107 (Speaking 23), GRE: 326+4.5

REFERENCES

Prof. Markus K. Brunnermeier
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