

# Yan Hao

State College, PA 16801

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## Personal Profile

I'm a Ph.D. candidate in Pennsylvania State University planning to graduate and get my Ph.D. degree in November, 2023. My research interests are mostly public economic-involved topics, including fiscal federalism, public goods and public economics, governmental bargaining and taxation policy.

## Education

### Pennsylvania State University

State College, America

The Doctor of Philosophy (PhD)

Sept 2019 - Current

- Working as a Research Assistant
- Working as a Adjunct Professor
- **Courses:** Public Administration, Public Policy, Network Analysis, Public Management Theory, Advanced Microeconomics Theory, Advanced Macroeconomics Theory, Advanced Econometrics, Real Analysis, Bayesian Econometrics, Industrial Organization, Public Economics, Public Finance

### The Johns Hopkins University

Washington D.C., America

Master of Science in Economics

Sept 2017 - June 2019

- Graduated with Distinction
- **Courses:** Stochastic Process, Topology, Ordinary Differential Equation, Partial Differential Equations, Financial Economics, Hedge Fund Market

### Central University of Finance and Economics

Beijing, China

Bachelor in Accounting and Taxation

Apr 2012 - Apr 2016

- GPA top 15%
- **Courses:** Accounting, Intermediate Accounting, Managerial Accounting, Finance, Money and Banking, Financial Management, Auditing, Taxation Theory, Advanced Mathematics, Linear Algebra, Statistics, Probability Theory

## Work Experience

### Weifang Municipal Bureau of Statistics

Shandong, China

Intern

Dec 2015 - Jun 2016

- Collaborated with a four-person team to develop a statistical report on industrial organization in Weifang City, using python and R studio to generate necessary graphs and charts.
- Teamwork with 5 group members to generate an analysis of Weifang Census data
- **Technical Skills:** R studio and Python with PyTorch, NumPy, Matplotlib, Pandas, SK-learn.

### Industrial and Commercial Bank of China, Weifang

Shandong, China

Intern

Mar 2016 - Jun 2016

- Work with 10 members in Risk Control Department to analyze the data in the note book, estimate the conditions of companies, generate the evaluation report and control the credit risk.
- **Technical Skills:** Office, Markdown.

### Guotai Junan (Shanghai) Securities

Shanghai, China

New Energy Industry Analyst

Feb 2023 - Current

- Working as a industrial researcher and using professional software like Wind or Bloomberg to independently generate the survey report on new energy industry in China. The topics I write include: the Water electrolysis hydrogen production industry, Energy storage industry including pre-charge energy storage and household energy storage, AI industry energy consumption evaluation (using Chatgpt as an example) etc

## Teaching Experience

### Purdue University

Beijing, China

Teaching Assistant

Jun 2018 - Sep 2018

- Professor: Frank Kane
- Course: Accounting

### Purdue University

Beijing, China

Teaching Assistant

Jun 2018 - Sep 2018

- Professor: Frank Kane
- Course: Managerial Accounting

## Johns Hopkins University

Teaching Assistant

- Professor: Lixiong Li
- Course: Econometrics

Baltimore, America

Sep 2017 - Jun 2018

## Pennsylvania State University

Teaching Assistant

- Professor: Kalyan Chatterjee
- Course: Microeconomics

State College, America

Sep 2020 - Jun 2021

## Pennsylvania State University

Adjunct Professor

- Course: Introductory Game Theory

State College, America

Sep 2022 - Dec 2022

## Pennsylvania State University

Adjunct Professor

- Course: Introductory Statistics

State College, America

Sep 2022 - Dec 2022

## University Projects

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### The Reform of Consumption Tax on Refined Oil Products

Central University of Finance and Economics

Beijing, China

Jan 2015 - Dec 2015

- Professor in charge: Yanfeng Bai
- Analysing data from 2008 to 2015 to discover patterns such as trends, correlations, and probabilities.
- Discuss the pros and cons of the reform on tax policy in terms of the efficiency and political intention mathematically
- **Technical Skills:** Tableau, Stata, Office, LaTeX.
- **Soft Skills:** Time Management, Teamwork, Presentation skills, Report writing.

### Credit Risk Modeling and Validation in Real Estate Market

Johns Hopkins University

Washington DC, America

Nov 2021 - Dec 2021

- Professor in charge: Sang-Sub Lee
- Analysing data from 2008 to 2015 to discover patterns such as trends, correlations, and probabilities.
- **Technical Skills:** Python with Pandas, matplotlib, Seaborn. Latex. Matlab.
- **Soft Skills:** Model Construction, Writing, Data Analysis

### Governmental Accounting and the Management, Discussion and Analysis Section: An Exploratory Study of Understandability

Pennsylvania State University

State College, America

Dec 2019 - Jan 2022

- Professor in charge: Odd.Stalebrink
- Go through literature to generate a comprehensive literature review. Design a fixed effect model to conduct a longitudinal analysis
- **Technical Skills:** Stata. Latex
- **Soft Skills:** Model Construction, Writing, Data Analysis, Literature Reading and Summary

### Bargaining with timing of information acquisition

Pennsylvania State University

State College, America

Jan 2020 - Dec 2022

- Professor in Charge: Kalyan Chatterjee
- Go through and evaluate the mathematical proof developed by Dr Chatterjee, compare with the existing theoretical model
- **Technical Skills:** Latex
- **Soft Skills:** Model Construction, Literature Reading and Summary

### Consumer Surplus of Alternative Payment Methods

Pennsylvania State University

State College, America

Jan 2021 - Dec 2022

- Professor in Charge: David Argente
- Data collecting, data wash and analysis, construct a difference in difference model to do a longitudinal analysis on consumer data.
- **Technical Skills:** Python, Stata, R, NodeXL
- **Soft Skills:** Model Construction, Data Analysis, Literature Reading and Summary

## Skills

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**Programming** Python (Pandas, PyTorch, NumPy, Scikit-learn. etc.), R(ggplot2), Stata, Matlab,

**Miscellaneous** 四X(Overleaf or VScode), Tableau, Microsoft Office, Markdown, CorelDRAW, NodeXL, Wind and Bloomberg Terminal

**Soft Skills** Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation.

## Student Achievements

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2012	<b>688/750</b> , College Entrance Exam	China
2017	<b>327/340</b> , Graduate Record Examinations (GRE)	China
2017	<b>110/120</b> , TOEFL	China
2018	<b>Level 1</b> , Chartered Financial Analyst (CFA)	America
2018	<b>2 of 6 subjects passed</b> , Chinese Certified Professional Accountants (CPA)	China
2019	<b>Full Scholarship</b> , Pennsylvania State University	America

## Publications

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### **CENTRAL AND LOCAL GOVERNMENTAL FISCAL BARGAINING UNDER FISCAL FEDERALISM—AN ANALYSIS WITH ASYMMETRIC SETTING**

NATIONAL TAX JOURNAL

Condition: Revise and Resubmit

Author

### **POLITICAL PARTY CONTROL AND INTERGOVERNMENTAL TRANSFER UNDER FISCAL FEDERALISM**

PUBLIC FINANCE REVIEW

Condition: Revise and Resubmit

Co-Author with Dr Odd Stalebrink

### **FLYPAPER EFFECT IN VARIOUS FIELDS: AN THEORETICAL INFERENCE AND BIBLIOGRAPHY EVIDENCE**

PUBLIC FINANCE REVIEW

Condition: Revise and Resubmit

Author

### **GRANTS IN AID ON SUBNATIONAL'S TAX COLLECTION BEHAVIOR: AN PANEL DATA EMPIRICAL EVIDENCE**

FEDERALISM AND FORMAL THEORY

Condition: Revise and Resubmit

Author

## Working Papers

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### **BUDGET PERSIST UNDER ASYMMETRIC INFORMATION INTERGOVERNMENTAL TRANSFER**

with Yiqun Tong

## Conference and Presentation Proceedings

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### **AMERICAN SOCIETY FOR PUBLIC ADMINISTRATION CONFERENCE—PUBLIC FINANCE PANEL**

Washington D.C., Nov 2019

Political Party Control and Intergovernmental Transfer under Fiscal Federalism—a Longitudinal Study

Presenter

### **NORTHEAST CONFERENCE ON PUBLIC ADMINISTRATION CONFERENCE—PUBLIC FINANCE PANEL**

New York, Mar 2020

Political Party Control and Intergovernmental Transfer under Fiscal Federalism—a Longitudinal Study

Presenter

### **AMERICAN SOCIETY FOR PUBLIC ADMINISTRATION CONFERENCE—PUBLIC FINANCE PANEL**

San Diego, Nov 2021

Fiscal Behavior of Central and Local Governments under Asymmetric Setting—a Game Theory Model Setting

Presenter

### **AMERICAN SOCIETY FOR PUBLIC ADMINISTRATION CONFERENCE—PUBLIC FINANCE PANEL**

Online, Oct 2022

## Grants in Aid on Subnational's Tax Collection Behavior: an Panel Data Empirical Evidence

Presenter

### **PENN STATE IO BROWNBAG**

State College, Fall 2019–Spring 2022

Presenter

### **APPLIED MICRO SEMINAR**

State College, November 2022

Presenter

## Interests

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**Cooking** I love cooking. I am an expert in most Chinese-style cooking.

**Soccer** I was a member of school soccer team in Central University of Finance and Economics and competing with other universities in Beijing in China University Football League(CUFL). Now I play for fun occasionally and I'm a huge fan of Arsenal FC.

**Swimming** I started swimming when I was 12. Going through submerged things while holding my breath was the most exciting part.

## Languages

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**English** Professional proficiency

**Chinese** Native proficiency

**References available upon request.**