

Curriculum Vitae for Haoran Dai

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Education

Utrecht University, PhD Candidate 2022.09-Present

- Main topic: Wage determination and labor market dynamics..

Utrecht University, Research Master(Multidisciplinary Economics) 2020.09-2022.06

- Master Thesis: *'996 Work System in the Chinese Labor Market, a First Price all-pay Auction Approach.'*

Zhejiang Gongshang University(Applied Statistics) 2016.09-2020.06

- Bachelor Thesis: *'Unbalanced data set processing method based on SVM and random forest.'*

Working Experience

Utrecht University – Teaching Assistant(Data Visualization in R) 2021.10-2023.10

- Led tutorial sessions and hands-on labs on data visualization, data wrangling, and introductory machine learning workflows in R.
- Supported course coordination through assignment/exam grading, feedback provision, and student office hours.

Utrecht University – Teaching Assistant(Game Theory) 2023.10-2025.07

- Taught tutorials covering strategic-form, extensive-form, repeated games, multiple equilibrium concepts, and applications.
- Assessed assignments and exams; provided structured feedback and academic advising to students.

Utrecht University – Research Assistant(Experiment) 2022.02-2023.06

- Designed experiments on behavior prediction within competition and gender stereotypes.
- Performed descriptive analysis and causal inference techniques, including data cleaning, DID models, and 2SLS models.

Research Experience

Working papers

- *'Nominal Wage Dynamics'* is ready to submit.
- *'Optimal incentive scheme with heterogeneous spillover effect'* is under review by the Journal of Economic Behavior and Organization.
- *'Working Hours and Working Days in an Expanding Economy'* is ready to submit.

Development of Complex System 2021.09-2022.01

- Employed Cellular Automata simulation to predict pedestrian behaviors and find optimal street design.
- Illustrated economic fluctuations using the Kuramoto model.

Joint Laboratory organized by Utrecht University and Optiver 2021.12-2022.03

- Receiving training for trading options.
- Formulating algorithms for trading under a virtual environment.

Summer School organized by Barcelona School of Economics(Wage determination) 2023.07-2022.08

- Explored determinants for nominal wage, including education, gender, race, and productivity.
- Presented preliminary results for the first paper.

Skills

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- Empirical Analysis: Proficient in Bayesian statistics, time series analysis, Panel regression (including unbalanced data sets), DID model, and Markov chain Monte Carlo methods.
 - Theoretical Analysis: Experienced with the Tournament model, Auction theory, and convex optimal theory.
 - R Programming: Skilled in data visualization, descriptive analysis, (Panel) Linear regression, natural language processing, 2SLS model, and Cellular Automata simulation using the R programming language.

Honor&Award

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- Meritorious Winner of the Mathematical Contest in Modeling (MCM/ICM), February 2019 (ESG).