# Wei Zhang

CONTACT Information Department of Economics Purdue University

100 Grant St, West Lafayette,

IN 47907, USA

Office: KRAN 488

E-mail: zhan3721@purdue.edu

RESEARCH Interests Large Bayesian VARs, stochastic volatility models, dynamic factor models, variational inference, tree-based models.

EDUCATION

Purdue University, West Lafayette, IN USA

Ph.D. Candidate, Economics, August 2019 (expected graduation date: August 2025)

• Advisor: Joshua C. C. Chan; GPA: 3.9

Humboldt University of Berlin, Berlin, Germany

M.S., Econometrics, August 2015-August 2017

University of International Business and Economics (UIBE), Beijing, China

Master of Economics, International Trade, September 2014-June 2017

Zhongnan University of Economics and Law (ZUEL), Wuhan, China

B.A., September 2010-June 2014

Honors and Awards **Purdue University**: Doctoral Student Research Fund, 2024; Summer Research Grant 2022, 2024; Federick N. Andrews Fellowship, 2019, 2020

**UIBE**: Graduate Student Scholarship, 2014-2016;

ZUEL: Excellent Graduate of Class 2014; National Scholarship, 2013.

Working Papers

"Bayesian Dynamic Factor Model for High-dimensional Matrix-valued Time Series" (Job Market Paper)

"Inflationary Pressure Tracking in the Euro Area: A Matrix Dynamic Factor Approach with Missing Data Resolution" (in progress, with Joshua C. C. Chan and Marta Bańbura)

"Bayesian Model Comparison for Large Bayesian VARs after the COVID-19 Pandemic" (with Joshua C. C. Chan and Xuewen Yu, R&R, **Journal of Econometrics**)

"Asymmetric Dynamic Factor Model" (with Joshua C. C. Chan)

ACADEMIC EXPERIENCE Purdue University, West Lafayette, Indiana USA

Teaching assistant

August 2019-present

Duties at various times have included office hours, grading, preparing homework assignments and finals, and leading weekly review sessions.

- $\bullet$  Undergraduate
  - Econ 210 Principals of Economics (Spring 2020)
  - Econ 251 Microeconomics (Fall 2019)
  - Econ 340 Intermediate Microeconomics (Fall 2020)

- Masters
  - Econ 572 Econometrics (Summer 2023)
  - Econ 576 Statistical and Machine Learning (Fall 2024)
  - Econ 590 (MY1) Financial Valuation (Fall 2021)
  - Econ 590 (MY3) Investments (Fall 2021, Fall 2022)
- Ph.D.
  - Econ 606 Microeconomics I (Fall 2020)
  - Econ 671 Economics (Fall 2023)
  - Econ 674 Econometrics (Spring 2022, Spring 2023, Fall 2024)
  - Econ 693 Bayesian Econometrics I (Fall 2023, Fall 2024)

### Research Assistant

August 2019 -present

My responsibilities have included conducting literature reviews, as well as collecting and cleaning data. I have had the privilege of working with the following professors (ordered by the time of assignments):

• Elchin Suleymanov, David Gill, Miguel Sarzosa, Ralph Siebert, Mario Crucini and James Bullard

# CONFERENCE, SEMINARS AND WORKSHOPS

SEA 94th Annual Meeting, Graduate Student Award, November, 2024.

NABE Tech Economics Conference & Industry Job Fair, October, 2024.

European Central Bank, DG-E Internal Seminar, August, 2024.

Purdue University, Department of Economics, Economics Workshop, 2022, 2021

### Refereeing

Journal of Business & Economic Statistics, Journal of Forecasting, Journal of Quantitative Economics

# Professional Experience

# European Central Bank, Frankfurt am Main, Germany

#### Summer Trainee

July 2024-August 2024

Collaborated with leading economists on the project "Inflationary Pressure Tracking in Euro Area". Presented the paper "Bayesian Dynamic Factor Model for High-dimensional Matrix-valued Time Series" with its application to an inflation panel in Euro area in the internal seminar. Refined the model to address missing data challenges and enhance inflation forecasting accuracy.

# Ziroom, Beijing, China

### Pricing Analyst

Feburary 2019-May 2019

Responsible for development and innovation of predictive models for housing prices in China; Delivered data analysis findings to management.

### China Mobile Research Institute, Beijing, China

#### Strategy Analyst

August 2017-October 2018

Responsible for development of strategies and plans that define how information technology should be utilized to support the Group's overall business strategy. Managed a small team to analyze the macroeconomic conditions, designed and developed best practice business changes, e.g., digital transformations.

# Accenture, Beijing, China

# Strategy Consultant Intern

# September 2016-February 2017

Collaborated with team members dedicated to developing data-driven insights and practical strategies to support clients' business objectives. Responsible for crafting and delivering coherent and logical narratives to clients that effectively convey our strategic plans.

SKILLS

- Statistical Softwares: R, Matlab, Python
- Algorithms: Markov Chain Monte Carlo simulations of Bayesian posterior distributions, variational algorithms, nonlinear state-space filters, regression trees
- Languages: Chinese (native), English (fluent), Japanese (beginner), German (basic)

PERSONAL INFORMATION

• Chinese citizen, US permanent resident