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, 2019-2021

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"

"Inflationary Pressure Tracking in 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)

"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.

- *2019-2020* ECON 251: Microeconomics; ECON 210: Principles of Economics
- *2020-2021* ECON 340: Intermediate Microeconomic Theory; ECON 606: Microeconomics I
- *2021-2022* ECON 590 (MY1): Financial Valuation; ECON 590 (MY3): Investments; ECON 674: Econometrics
- *2022-2023* ECON 590: Investments; ECON 674: Econometrics; ECON 572: Econometrics
- *2023-2024* ECON 693: Bayesian Econometrics I; ECON 671: Economics

- *2024-2025* ECON 693: Bayesian Econometrics I; ECON 674: Econometrics

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:
- Elchin Suleymanov, David Gill, Miguel Sarzosa, Ralph Siebert and Mario Crucini

Conference, Seminars and Workshops

SEA 94th Annual Meeting, November, 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 Marta Bańbura 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.

Ziroom, Beijing, China

Pricing Analyst **December 2018-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-December 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: Experience programming Markov Chain Monte Carlo simulations of Bayesian posterior distributions, variational algorithms, nonlinear state-space filters, regression tree algorithms
- Languages: Chinese (native), English (fluent), Japanese (beginner), German (basic)