**Wendan Zhang**

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GitHub: <https://github.com/Danny1127>

Education

**University of Arizona** Tucson, AZ Ph.D., May 2021 (expected)

Major: Economics Master’s degree, Dec 2017

Minor: Geographic Information Systems Technology (GIST)

**University of Wisconsin-Madison** Madison, WI Master’s degree, May 2016

Major: Mathematics

**Shanghai Jiao Tong University** Shanghai, China Bachelor of Science degree, June 2015

Major: Mathematics and Applied Mathematics

Minor: Business Administration, **East China Normal University** Shanghai, China

Work in Progress

**The Impact of a Phantom Policy: What does MATS mean to Coal Power Plants**

Study the impact of Mercury and Air Toxics Standards (MATS) on coal power plants’ exit and investment decisions. Using a dynamic structural model with the estimated compliance behavior and costs to fit the actual responses by the coal power plants, then back up the enforcement probability of MATS perceived by these coal power plants.

**Electric Vehicles are driven less: selection or substitution**

Study the households’ driving pattern in other cars of the same household before and after purchasing an electric vehicle (EV). EVs are not driven as much as gasoline-powered vehicles. Two potential reasons are the selection of adoption and substituting mileage among the cars in the household portfolio. Results suggest that selection is the main force.

**Emission Footprint: the dying message from coal power plants**

Study the operation decision and emission pattern of coal power plants approaching the end of operation. Coal power plants increase the frequency of turning on and off the electricity generator when they get closer to the end of operation. This leads to higher emissions for each unit of electricity generated.

Research/Project Experiences

**Measuring the Economic Consequences of Uncertainty** University of Arizona, AZ

Research Assistant to Prof. Ashley Langer and Prof. Derek Lemoine Summer 2017, 2018

• Made use of option data to reveal the market expectation for certain event

• Utilized Stata to provide empirical evidence for the project

**Computational Biochemistry Lab** University of Wisconsin-Madison Madison, WI

Research Assistant to Prof. Julie Mitchell 01/2015 – 07/2016

• Applied Machine Learning algorithms to data analysis and build models to describe patterns in DNA sequences

• Processed large data with High Throughput Computing (HTC), created graphs to visualize large data with Matlab, Python, and R

• Explained and reported research results to group members

Workshop/Conference

Women in Data Science (WiDS) 4/5/2019

Arizona Student Energy Conference (Panel Presenter; Poster; Fast Pitch; Grand Challenge Winning Team) 11/7-11/9 2018

International GIS day workshop 11/13/2019; 11/14/2018

2018 Berkeley Summer School in Environmental and Energy Economics 8/13-8/17 2018

Research Computing: NVIDIA GPU Workshop 4/25-4/26 2018

Activities

**Sole Instructor University of Arizona, Tucson, AZ**

Econ 330 Macroeconomic and Global Institutions and Policy (Online) Summer, Winter 2019

Econ 431 Games and Decisions Summer 2019; Winter 2017

Econ 436 Behavioral Economics Summer 2018

**Teaching Assistant University of Arizona, Tucson, AZ**

Econ 519 Mathematical Economics Fall 2017

Econ 330 Macroeconomic and Global Institutions and Policy Fall 2017

Econ 340 International Economics and Policy Spring 2019

Econ 431 Games and Decisions Spring 2017

Econ 300 Microeconomic Analysis for Business Decisions Fall 2016; Winter 2016 (online)

Econ 200 Basic Economic Issues Fall 2016 (online); Spring 2017; 2018; 2019; Spring 2020

**WIDA** **University of Wisconsin-Madison Madison, WI**

Project Assistant06/2015-08/2015

• Updated a new framework for the project standard setting

• Gathered and organized the information for research

• Sped up the process utilizing excel, reduced to 1/3 of the expected time

Volunteer

Eller Make A Difference Day 10/26/2019

UA Women's Hackathon (Python for Programmers; Cloud Based GIS with Python) 10/19-10/20/2019

University of Arizona Global Health Competition 10/12-10/13 2019

University of Arizona Graduate and Professional Student Council Grants Judge 2016-2019

Software/Data Carpentry Workshop (Assistant) 08/2017

UW Arboretum restoration (organized by UW actuarial club) 01/2016

UW Homecoming -- run for literacy 10/2015

Shanghai International Marathon Volunteer 12/2012

Awards & Exams

Received ASA from the Society of Actuaries 02/2018

GRE: Verbal 161 (87%), Quantity 170 (98%) 08/2015

Outstanding graduate of the Shanghai Jiao Tong University 06/2015

Japanese Language Proficiency Test N1 (the highest level): passed 12/2013

Technical Skills

**Advanced**: R, Stata, Python, Matlab, Bash, HTML, Microsoft Word, Excel (VBA), PowerPoint, Latex

**Basic**: C, SPSS, SQL, UNIX (Mac), Windows, Linux, PHP, CSS, ArcGIS Pro, AWK, GitHub

Languages

**Native:** Mandarin, Cantonese, Chaoshan dialect

**Fluent:** English, Japanese

**Basic:** Korean

Last updated on December 28, 2019