

MAX Z. SHANG

zshang@uoguelph.ca ♦ +1 519-281-5021 ♦ maxshang.com

120 Main St E, Ridgeway, Ontario, Canada, N0P 2K0

Updated: Mar. 2019

EDUCATION

- | | |
|--|------|
| University of Guelph , Canada | 2015 |
| Ph.D., Food, Agricultural and Resource Economics (FARE) | |
| Dissertation: Nonparametric Density Estimation Methods with Application to the U.S. Crop Insurance Program | |
| Supervisor: Alan P. Ker | |
| Northwest A&F University , China | 2010 |
| M.Sc., Agricultural Economics & Project Management | |
| Northwest A&F University , China | 2007 |
| B.B.A., Business Administration (Top Undergraduate Thesis Award Winner) | |

CERTIFICATIONS

- Data Scientist with R (datacamp.com [Certificate #75295](#))
Courses: Introduction to R | Intro to SQL for Data Science | Intermediate R | Joining Data in SQL | Introduction to the Tidyverse | Data Visualization with ggplot2 | Importing Data in R | Data Manipulation in R with dplyr | Joining data in R with dplyr | Cleaning Data in R | Importing Cleaning Data in R: Case Studies | Writing Functions in R | Working with Dates and Times in R | Introduction to Data | Exploratory Data Analysis | Exploratory Data Analysis in R: Case Study | Correlation and Regression | Cluster Analysis in R | Supervised Learning in R: Classification | Unsupervised Learning in R | Reporting with R Markdown
- R Programming by Johns Hopkins University on Coursera
Certificate (9CPQLCZEBPZB) earned May 2016
- The Data Scientist's Toolbox by Johns Hopkins University on Coursera
Certificate (YR34GFFV37TX) earned May 2016

APPS AND WEBSITES

- App: Benchmark tool for Ontario dairy farmers March 2018
<http://maxshang.com/app/benchmark/>
Developed a benchmark App which enables Ontario dairy farmers to see how efficient they are compared to their peers. Edited the website to conform with accessibility standards. Designed new logo.
- App: Profit Forecast App for Ontario Sheep Farmers
<http://maxshang.com/app/forecast/>
This app predicts lamb prices in Ontario for the next four weeks, calculates the possible cost and profit if lambs are sold in any of the next four weeks. It enables a more efficient decision making process for Ontario sheep farmers.

- App: Compare potential employers with data from Glassdoor.com Jan 2019
<http://maxshang.com/app/glassdoor/>
 This tool is trying to make the comparison between two potential employers easier.
 The data used is from glassdoor.com.
- App: Visualizing the Network of Scholars
<https://github.com/MaxShang/ScholarNetwork>
 This App visualizes the network of scholars based on data from Google Scholar.
- Developed and maintaining the following websites
www.getuhailu.com
www.maxshang.com

EXPERIENCE

Research Associate June 2016 -
University of Guelph, Ridgetown Campus

- Proposed a theoretical model that explains how the make-or-buy decision of input on a livestock farm is affected by the level and volatility of input prices under two systems: market and hierarchy. Empirically tested model predictions with data that track 682 swine farms in Ontario for twelve years. Using monthly USD/CAD exchange rates as the instrumental variable, I found strong evidence to support the proposed theoretical model: relative governance efficiency of market and hierarchy affected the extent of backward integration. Presented research findings at the 2017 Canadian Agricultural Economics Society Annual meeting and prepared paper manuscripts for academic journals.
- Developed an [App](#) to simulate how farm boundary impacts farm profit variability.
- Submitted research proposals to Ontario Ministry of Agricultural and Rural Affairs and received funding to study the Ontario greenhouse vegetable industry.

Graduate Research Assistant Sept 2010 - Jun 2016
University of Guelph

- Reviewed literature and identified that the bias reduction and the variance reduction nonparametric density estimators have not yet been combined
- Developed two novel, more general nonparametric density estimators
- Coded numerical simulations in R to test the performance of the proposed estimators, significant efficiency gains are found.
- Applied the two proposed methods to rate crop insurance contracts over the alternative methods in out-of-sample simulation games. Statistically and economically significant improvements are found with the potential to save enormous amount of taxpayers' money.
- Conducted sensitivity analysis where only recent data is used. Results suggest the findings are robust to missing historical yield data, implying that by adopting the proposed estimators the Supplemental Coverage Option, a new crop insurance option that provides additional coverage to farmer, could potentially be expanded to crops and areas with significantly less historical data.

Field Survey Leader 2010
Northwest A&F University

- Team leader, survey in rural China for a joint project between Cornell University and Northwest A&F University on weather insurance and land transfer

CONFERENCES AND PRESENTATIONS

- Presented Web App to the board members of the [Ontario Sheep Marketing Agency](#), Guelph, Ontario, October 12, 2017
- Presented “The Boundary of the Farm: Homegrown versus Purchased Feed on Ontario Swine Farms”, [Canadian Agricultural Economics Society \(CAES\) Annual Meeting](#), Montreal, June 18-21, 2017
- [Seventh Annual Canadian Agri-Food Policy Conference](#), Ottawa, January 11-13, 2017

GRANTS

- Funding Agency: Ontario Ministry of Agriculture, Food, and Rural Affairs - University of Guelph Research Program
Title: The Impact of Business Risk Management Programs on Swine Farm Investment Tendencies
Role: collaborator (research proposal writing, literature review, data analysis and empirical model)
Size: \$91,000
- Funding Agency: Ontario Ministry of Agriculture, Food, and Rural Affairs - University of Guelph Research Program
Title: Analysis of Profitability and Government Programs on Ontario Greenhouse Vegetable Farms
Role: collaborator (data cleaning and analysis, report writing, paper manuscript preparation)
- Funding Agency: Ontario Pork, Ontario Ministry of Agriculture, Food, and Rural Affairs - University of Guelph Research Program
Title: Analysis of Variability within the Ontario Swine Sector
Role: collaborator (data clean and analysis, theoretical model development, paper manuscript preparation, research findings presentation at conferences)
Size: \$102,000

AWARDS AND RECOGNITION

- International Graduate Scholarship, University of Guelph 2010
- Northwest A&F University Scholarship 2010-2014
- Distinguished Conference Paper, Social Science Association of Shaanxi Province 2008
- Best Undergraduate Thesis Award (Top 3%) 2007

PROFESSIONAL ORGANIZATIONS AND AFFILIATIONS

- Canadian Agricultural Economics Society (CAES)
- Agricultural and Applied Economics Association (AAEA)
- International Association of Agricultural Economists (IAAE)

PROFESSIONAL SERVICE

- Reviewer, [30th International Conference of Agricultural Economists](#), Vancouver, British Columbia, Canada, July 28 - August 2, 2018

TEACHING

Instructor on studentofferingsupport.ca, exam review session instructor of Introductory Microeconomics and Intermediate Microeconomics 2015

MISCELLANEOUS

Programming Skills	R (8 years experience), R Shiny App Development Stata, L ^A T _E X, Ubuntu
Languages	English, Chinese