## Yifei Zhang, Ph.D. Candidate

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1123 Rice Ranch Way Cary, NC 27518

#### PERSONAL OVERVIEW

A motivated team player with effective communication skills and extensive experience in quantitative research methodologies. Have extensive research experience in the foundations of the US economy including field crops, livestock, and construction materials industry, which lead to an excellent position to expand expertise toward complex and dynamic business environment. Highly trained in economic modeling and statistical analysis.

#### **EDUCATION**

#### North Carolina State University

Raleigh, NC

Ph.D. in Economics, May 2023 (Expected) (3.9/4.0)

August 2018 - Present

Fields: Econometrics, Multivariate Risk Analysis Owens Graduate Fellowship, Graduate Assistantship

- Research focus: Extensive research in insurance risk analysis through Copula models; Market efficiency in the context of pricing dynamics
- Highlight Courses: Big Data Econometrics, Econometric Method, Time Series Econometrics

**Miami University** 

Oxford, OH

M.A. in Economics (3.9/4.0)

August 2017 – July 2018

Top 1% Student Receiving Full Scholarship

**James Madison University** 

Harrisonburg, VA

B.S. in Economics, Minor: Mathematics (3.7/4.0)

August 2013 – May 2017

Outstanding Senior in Economics, Beta Gamma Sigma Business Honor Society

#### PROFESSIONAL EXPERIENCE

#### **North Carolina State University**

Raleigh, NC

Economic Researcher

August 2019 – Present

- Achieved breakthrough in multi-variate risk analysis, improving crop and livestock insurance premium rate pricing in agriculture industry endorsed by USDA
- Analyzed value-at-risk (VaR) to measure the specific risk of loss on portfolios in agricultural insurance markets
- Studied the ex-ante risks in fed cattle production, the dependence relationships between variables were addressed using highdimensional Copula models
- Incorporated machine learning technique (neural network, shrinkage models etc.) into Vector Autoregressive Models (VAR) which makes price projections of construction material markets

#### ACADEMIC CONFERENCES/PANELS

# Agricultural & Applied Economics Association (AAEA) National Annual Meeting Selected Presentations (2020, 2021, and 2022)

- Temporal and Spatial Price Relationship for Construction Material Industry (Anaheim, CA, August 2022)
  - Organized discussion among industry exports and academic professionals on pricing methodologies and dynamics under the influence of pandemic
- Ex Ante Risks in Fed Cattle Production: A New View from Copulas (Austin, TX, August 2021)
  - Innovated methods to address risks in fed cattle industry which in turn offers new views of the profitability
- Implications of U.S. Crop Insurance -- A Perspective from Copulas (Kansas City, MO, August 2020)
  - o High dimensional risk analysis and pricing of crop insurance

#### LEADERSHIP EXPERIENCE

### North Carolina State University Independent Instructor

Raleigh, NC

January 2020 - Present

- Independently taught undergraduate Microeconomics ranging in size from 35-60 students each section for 7 semesters
- Advised in total of 650 students in Business Communication class on their client project report and other assignments
- Received a grant of \$4,000 from NC State Library to develop interactive course materials based on an open-source education system

#### **SKILLS**

- Ability to develop and perform complex models using R and Python
- Knowledge in data manipulation through SQL
- Fluent in English and Chinese