3059 Biber Street East Lansing, MI 48823

# **Haoxiang Feng**

(517)802-8270 fenghaox@msu.edu

#### EDUCATION

Michigan State University East Lansing, MI

Ph.D. in Statistics Expected 2024

Passed probability prelim exam with distinction

**Beihang University** Beijing, China

M.Phil. in Mathematics January 2019

**Hubei University** Hubei, China June 2016

B.S. in Mathematics

**PROJECTS** 

**Michigan State University** East Lansing, MI

Ph.D. Researcher January 2021 — Present

- Learn properties of stochastic processes such as fractional Brownian motion and  $\alpha$ -stable Lévy motion by reading classic textbooks and papers and giving presentations in a seminar weekly
- Deepen understanding of algorithms from classics papers by coding them via RStudio

## Beijing Haishi Ruige Technology Co.

Beijing, China

Researcher

March — August 2019

- Designed a scheme for anomaly detection applied to medical-grade wearable hardware by searching classic papers to summarize mainstream algorithms
- · Specified anomaly detection algorithms for the hardware by comparing a set of features extracted from a short window of multivariate signals via Python

**Beihang University** Beijing, China

Master's Researcher September 2017 — January 2019

- Facilitated to build a personalized recommendation system by applying convolutional neural network to sensor data from smartphone to recognize customer actions
- Contributed to company profits by combining advantages of machine learning algorithms such as random forest and time series analysis to build sales forecasting models for books on the market via Python
- Facilitated company decisions by integrating advantages of natural language processing like word2vec and machine learning algorithms such as random forest to build sales forecasting models for new books via Python

### **LEADERSHIP**

#### **Michigan State University** East Lansing, MI

Ph.D. Student Representative

September 2021 — Present

- Optimized course content by providing advice based on individual experience to the chairman of Service Course Committee
- · Strengthened connections between students and the chair person by collecting questions and suggestions from classmates and
- · Supported bylaw reform in the department by participating in Committee of the Whole meeting and voting on biweekly proposals

**Michigan State University** East Lansing, MI

Prelim Exam Assistant

June — August 2021

- Honed problem-solving skill by reviewing probability textbooks to write and compile solution manual for past prelim exams
- Accelerated review progress for prelim exams by leading weekly problem-solving discussions for a group of 12 PhD students to help them solve probability questions

**Michigan State University** East Lansing, MI

Teaching Assistant September 2020 — June 2021

- Contributed to the course quality of introductory statistics by helping solve statistical questions at statistics learning center and grading homework weekly to assist in teaching 120 first-year undergraduate students
- Assisted in teaching 5 third-year undergraduate students who have all since gone on to graduate school Brownian motion and random fractals by searching related simulation algorithms and presenting simulation results in class via R Markdown and Jupyter Notebook

#### SKILLS

**Computer Skills** Python, Pytorch, Matlab, R, C, LTFX Language Skills English(fluent), Chinese(native)