

# SAEED SHAKER

## CONTACT

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Department of Economics  
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## RESEARCH INTEREST

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Macro/Monetary Economics  
Financial Economics  
Machine Learning in Economics  
Quantitative/Computational Economics  
Economic Development

## EDUCATION

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<b>The Ohio State University</b> Ph.D., Economics, 2021	Columbus, OH
<b>East Carolina University</b> M.S., Econometrics and Quantitative Economics, 2015	Greenville, NC
<b>Tarbiat Modares University</b> M.S., Industrial Engineering, 2010	Tehran, Iran
<b>University of Tabriz</b> B.S., Mathematics, 2008	Tabriz, Iran

## RESEARCH PAPERS

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### Job Market Paper

Financial Frictions and Productivity Losses: Importance of Default-Led Heterogeneity in Collateral and Loan Rates [\(download\)](#)

### Publication

A Comprehensive Evaluation of Value-at-Risk Models and a Comparison of Their Performance in Emerging Markets, (2018), with Mohsen Seyghali and Solmaz Poorabbas, *Journal of Risk Model Validation* [\(link to paper\)](#)

### Working Papers

Impact of Entry Costs on Aggregate Productivity: Financial Development Matters [\(download\)](#)  
Entry Barriers in a Two-Sector economy with Perfect and Imperfect Financial Markets [\(download\)](#)  
Firm Entry and Exit in Continuous Time [\(download\)](#)  
Relative Importance of Employment and Investment Frictions and Their Interactions (draft available upon request)

### Work in Progress

Size-Dependent Financing and Aggregate Productivity  
Property Rights and Capital Misallocation

## FELLOWSHIPS, AWARDS AND HONORS

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University Fellowship, Graduate School, Ohio State University	Spring 2021
Department of Economics Award in Teaching Excellence	2019
Journal of Money, Credit and Banking Fellowship	2015-2016
Tehran Stock Exchange Organization's Best Masters Thesis Award	2011

## WORK EXPERIENCE

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### Big Data Federation

Data Scientist

San Jose, CA

Sep 2021 - present

### Upstart

Data Science Intern

Columbus, OH

Jun 2021 - Sep 2021

## SKILLS

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### Programming

Python, R, SQL, MATLAB, HTML, C, STATA, SAS

### Economic Research

Time-Series Analysis (ARMA, GARCH), A/B Testing, Causal Analysis (RDD, Diff-in-Diff), DSGE Modeling, VAR, Solving DSGE Models in Continuous Time, Back-testing, Non-linear Systems Optimization, Optimal Control Theory

### Data Analysis

Pandas, NumPy, SciPy, Scikit-Learn, Visualization (Matplotlib, Plotly, Altair), Data Engineering

### Machine Learning

Neural Networks (CNN, RNN, LSTM), TensorFlow, XGBoost, Random Forest, K-means, SVM, Gradient Descent, Naive Bayes, PySpark, Unsupervised Learning (Clustering, PCA), NLP, Linear Discriminant Analysis

### Technology/Industry Knowledge

AWS (S3, EC2, Redshift), Github, Financial Modeling, Forecasting, Risk Modeling, Investment Strategy, Portfolio Management, Financial Services, Credit Risk Analysis, Online Ad Auctions, Pricing, Fraud Detection, Anomaly Detection

## CONFERENCE PRESENTATIONS/INVITATIONS

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Midwest Economics Association, 84th Annual Meeting, Evanston, IL, USA	2020
Conference on Probability Theory and its Applications, Athens, Greece	2014
International Conference on Econometrics and Application, Sanandaj, Iran	2012

## TEACHING EXPERIENCE

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### Independent Teaching

Elementary Econometrics ([download syllabus](#))

Summer 2019, Summer 2020

### Teaching Assistant and Recitation Leader

Intermediate Microeconomics

Fall 2016, Spring 2018

Intermediate Macroeconomics

Fall 2018

Health Economics

Fall 2019

Principles of Microeconomics

Spring 2017, Spring 2019, Fall 2020

## OTHER PROFESSIONAL ACTIVITIES

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Research fellow, AEA summer program at Michigan State University

Summer 2017

Reviewer for: American Journal of Applied Mathematics

2020

Financial Economist, Egtesad Modaber Kish, Tehran, Iran

2011-2014

## PRE-PH.D. RESEARCH PAPERS

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Measuring Exchange Rate Fluctuations Risk Using the Value-at-Risk, with Parastoo Mohammadi, *Journal of Applied Finance & Banking*, 2012

Exponentially Declining Weighted Bootstrapping as an Alternative Value-at-Risk Measurement Technique, with GholamReza Keshavarz Haddad, *Working paper, Sharif University of Technology*, 2017

## REFERENCES

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**Professor Aubhik Khan**

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