

Yang Bai

Finance Ph.D. Candidate

www.yangbai-finance.com

www.linkedin.com/in/yangbai86028/

yangbai@mail.missouri.edu

Yang's Printable CV

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509 Cornell Hall
Finance Department
Trulaske College of Business
University of Missouri
Columbia, MO 65201

EDUCATION

• University of Missouri

Ph.D. in Finance (Chair: Kuntara Pukthuanthong [↗](#))

May 2022 (Expected)

- Outstanding Graduate Teaching Assistant Award (2020-2021)
- Raymond and Susan Chen Trulaske College of Business International Ph.D. Scholarship (2020-2021)
- Outstanding Graduate Research Assistant Award (2019-2020)
- Trulaske College of Business Ph.D. Scholarship (2018-Current)
- Trulaske College of Business Strategic Priority Scholarship (2018-Current)

• University of Alabama

Ph.D. in Finance

2017-2018 (Transferred)

• University of Georgia

M.Sc. in Statistics & B.Sc. in Mathematics

May 2015

- Regent Out-of-state Tuition Waiver (2014,2015)

WORKING PAPERS

1. [↗](#) Machine Learning Classification and Portfolio Allocation: An Examination of Market Efficiency, Bai and Pukthuanthong (2020)

Presentations: AFA Ph.D. Poster Session (2021), University of Missouri (2020), Crowell Prize 2020 Seminar (2021), University of Miami Winter Conference on Machine Learning and Business (2021), World Finance Conference (2021), SFA (Scheduled)

Awards: Crowell Prize 2020 (Third Prize), PanAgora Asset Management [↗](#)

Abstract: We frame the asset pricing problem as a machine learning classification problem. The predictions on 3.34 million observations yield significant out-of-sample economic gains. Through directly measured accuracies, binomial tests suggest that the classifiers can extract forward-looking contents from historical information, implying imperfect information efficiency. The classifiers exploit the differences in return state transition uncertainties. As reflected by a pre-realization measure based on multi-class predicted probabilities, the classifiers are more confirmative in predicting high-trading-friction stocks. Consistently, only trading frictions contribute to out-of-sample predictability throughout 26,302 distinct stocks' lifetimes. The adjustment of the classifiers' favorance over certain return states increases the performance.

ACADEMIC EXPERIENCE

• Graduate Research Assistant

Jing Wang, University of Missouri

Spring 2022, Fall 2021

• Graduate Research Assistant

Kuntara Pukthuanthong and Jing Wang, University of Missouri

Summer 2021

• Course Instructor

Real Estate Appraisal¹, University of Missouri

Spring 2021 (4.0/5), Fall 2020 (4.4/5)

• Graduate Research Assistant

John Howe and Kuntara Pukthuanthong, University of Missouri

Summer 2020

• Graduate Research Assistant

Frederick Bereskin, John Howe and Jialu Shen, University of Missouri

Spring 2020, Fall 2019

• Discussion Class Instructor

Survey of Business Finance, 3 Sections/Semester, University of Missouri

Spring 2019, Fall 2018

¹The course was delivered through online synchronous lectures due to the COVID19 pandemic for both semesters. The teaching evaluation score from students who received A or B in spring 2021 (fall 2020) is 4.3/5 (4.4/5). Around 85% (90%) students received A or B in the spring 2021 (fall 2020) section.

- **Graduate Teaching Assistant**
Intermediate Financial Management, University of Alabama Spring 2018, Fall 2017

CONFERENCE DISCUSSION

- **University of Miami Winter Conference on Machine Learning and Business** 2021
Murray, Xiao and Xia 2020: Charting by Machines
- **World Finance Conference** 2021
Biswas, Li and Piccotti 2021: Evaluation of Two Models of Exchange Rate Determination Using a Machine Learning Technique

INVITED WORKSHOP

- **Society of Financial Econometrics & New York University (Shanghai)** Summer 2021
SoFiE Summer School: Machine Learning in Finance with Jianqing Fan and Dacheng Xiu
- **Machine Learning Summer Schools & National Taiwan University (Taipei)** Summer 2021
Machine Learning Summer Schools: MLSS 2021 Taipei

OTHER PROFESSIONAL ACTIVITIES

- **Machine Learning Reading Group**
Organizer

INDUSTRY EXPERIENCE

- **Data Scientist** 2015-2017
Assurant
- **Assistant Client Manager Intern** Summer 2013
Industrial and Commercial Bank of China
- **Business Development Intern** Summer 2010
Bank of East Asia (Hong Kong)

PROFESSIONAL MEMBERSHIP

American Finance Association, European Finance Association

PROFESSIONAL DESIGNATION

- **Global Association of Risk Professionals**
Certified Financial Risk Manager (FRM[®]) [↗](#)

OTHER PUBLICATIONS

1. Bai, Dang, Park and Lee, 2018, A rolling analysis on the prediction of value at risk with multivariate GARCH and Copula, *Communications for Statistical Applications and Methods* 25:605-618².

²This is an applied statistics paper based on Yang's master's degree thesis.