

# Yang Bai

Finance Ph.D. Candidate

[www.yangbai-finance.com](http://www.yangbai-finance.com)

[www.linkedin.com/in/yangbai86028/](https://www.linkedin.com/in/yangbai86028/)

[yangbai@mail.missouri.edu](mailto:yangbai@mail.missouri.edu)

Yang's Dark Theme CV

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

## EDUCATION

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### • 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

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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 (Scheduled)

**Awards:** Crowell Prize 2020 (Third Prize) [↗](#)

**Abstract:** We design a novel framework to examine market efficiency through out-of-sample (OOS) predictability. We frame the asset pricing problem as a machine learning classification problem. We construct classification models to predict return states. The prediction-based portfolios beat the market with significant OOS economic gains. We measure prediction accuracies directly. For each model, We introduce a novel application of binomial test to test the accuracy of 3.34 million return state predictions. Our models can extract useful contents from historical information to predict future return states. We supply unique economic insights about OOS predictability and machine learning models with our novel setup.

## ACADEMIC EXPERIENCE

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### • Course Instructor

Real Estate Appraisal<sup>1</sup>, University of Missouri

Spring 2021, 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

### • Graduate Teaching Assistant

Intermediate Financial Management, University of Alabama

Spring 2018, Fall 2017

## CONFERENCE DISCUSSION

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### • University of Miami Winter Conference on Machine Learning and Business

2021

Murray, Xiao and Xia 2020: Charting by Machines

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<sup>1</sup>The course has been delivered through online synchronous lectures due to the COVID19 pandemic.

## PROFESSIONAL EXPERIENCE

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


## PROFESSIONAL MEMBERSHIP

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American Finance Association, European Finance Association

## PROFESSIONAL DESIGNATION

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- **Global Association of Risk Professionals**  
*Certified Financial Risk Manager (FRM<sup>®</sup>)* 

## OTHER PUBLICATIONS

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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* 25:605-618<sup>2</sup>.

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