# YUHAO ZHU

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#### WORK EXPERIENCE

# Erasmus University Rotterdam

Sep. 2015 to present

Ph.D. Candidate of Finance (Quantitative Financial Economics)

Rotterdam

- · Modelling financial topics in the business context, e.g., options, executive contracts, risk, and stock prices.
- · Quantitative data analysis: econometrics, time series, logistic regression, nonlinear optimization, text analysis.
- · Model validation and calibration with Python (numpy, scipy and pandas) and Matlab.
- · Data visualization with Python and R, e.g., choropleth maps, mean-variance boxes, histograms, and scatters.
- · Collecting, pre-processing, cleaning, and merging data sets from different sources.
- · Participating and presenting papers at seminars and conferences around the world.

#### Erasmus University Rotterdam

Sep. 2015 to present

Teacher of graduate level courses

Rotterdam

- · Teaching course "Seminar Advanced Corporate Finance: Corporate Governance".
- · Giving lectures "Basic Econometrics for Data Analysis" and "Data Analysis with STATA".

# Erasmus University Rotterdam

Sep. 2015 to present

Supervisor of Master/Bachelor Theses

Rotterdam

- · Supervising theses of 28 Master students and 2 Bachelor students.
- · Supervising topics on Corporate Finance, Executive compensation, M&A, Options, and Banking.

#### Tinbergen Institute

Sep. 2014 to Apr. 2015

Teaching Assistant for graduate level courses

Rotterdam

· Teaching assistant for "Corporate Finance Theory" and "Statistics".

# **EDUCATION**

# VU University Amsterdam & Tinbergen Institute

2013 to 2015

M.Phil. in Economics (Finance track), cum laude, GPA: 8.0/10.0

# University of Groningen

2011 to 2013

BSc (Honors) in Economics and Business Economics, GPA: 8.5/10.0

#### Fudan University, China

2009 to 2013

BA in Economics, GPA: 3.78/4.00

# TECHNICAL STRENGTHS

Working skills Econometrics, Quantitative methods, Big data analysis, Data visualization,

Financial modeling, Model validation, Game Theory, Stochastic calculus

Programming skills Python, Matlab, STATA, Java, Object Pascal, VBA for Excel, LATEX,

Git for version control, HTML for building personal website

Certificates CFA Level II Candidate, GRE (V:154, Q:170)

Languages Chinese (native), English (proficient), Dutch (basic, A2), Japanese (basic)

#### PAPERS AND PROJECTS

# "Probability-weighting CEOs and optimal contracts"

- I establish a model in which the CEO is not only risk-averse but also probability weighting.
- Because options protect CEO from downside risk, her risk attitude results in positive options holding in her optimal compensation package (increasing pay-performance-sensitivity).
- I use Python to write programs to validate and optimize my model with data on U.S. CEOs contracts.
- The numerical solution also supports my model and analytical solution.
- Firms can provide more incentive pay instead of fixed salary to managers to save costs.

# "The real costs of CEO compensation - the effect of behindness aversion of employees"

Joint work with Ingolf Dittmann and Christoph Schneider. Available on SSRN.

- We manually collect data from annual reports and construct a database on German executive compensation.
- We analyze the big data sets from the German Federal Employment agency using remote access.
- We manually collect the compensation data on CEOs in German firms.
- We establish a behavioral model where workers are inequality-averse.
- We design natural experiment to show that higher CEO pay results in higher workers pay.
- The implication is that the CEO compensation actually brings extra costs.

# "Wage gap and stock returns"

Joint work with Ingolf Dittmann and Maurizio Montone.

- We establish an asset-pricing model with noise traders and inequality-averse traders.
- We analyze the big data sets from the German Federal Employment agency using remote access.
- We identify the wage gap between top managers and normal workers.
- We find that firms with higher wage gap has positive risk-adjusted returns (alpha's).

# PRESENTATIONS AT SEMINARS & CONFERENCES

(planned) China International Conference in Finance, Tianjin, China	Jul. 2018
Sloan School of Management, Massachusetts Institute of Technology	
(planned) Global Finance Conference, Paris, France	Jul. 2018
Global Finance Association	
(planned) Behavioral Finance Working Group Conference, London, the UK	Jun. 2018
Queen Mary, University of London	
(planned) Tinbergen Institute Ph.D. Lunch Seminar, Rotterdam	May. 2018
Tinbergen Institute	
12th Conference on Asia-Pacific Financial Markets (CAFM) Seoul, Korea	Dec. 2017
Korean Securities Association	
IFABS 2017 Conference Ningbo, China	Sep. 2017
International Finance and Banking Society	
Tinbergen Institute Ph.D. Lunch Seminar, Rotterdam	Aug. 2016
Tinbergen Institute	
Erasmus Finance Brown Bag Seminar, Rotterdam	Nov. 2016
Erasmus University Rotterdam	
Tinbergen Institute Ph.D. Lunch Seminar, Rotterdam	Oct. 2016
Tinbergen Institute	

# AWARDS AND GRANTS

12th CAFM 2017 Outstanding Paper Award	Dec. 2017
AFA Student Travel Grant	Jan. 2017
M.Phil. Full Scholarship, Tinbergen Institute	2013 to 2013
Talent Scholarship, University of Groningen	2011 to 2013
First-class Scholarship, Fudan University	Sep. 2011
Second-class Scholarship, Fudan University	Sep. 2010
First-class Scholarship, Fudan University	Sep. 2009
DETAILED TEACHING EXPERIENCE	
Thesis Supervisor for 9 Master and 1 Bachelor Students	2017 to 2018
Erasmus School of Economics, Erasmus University Rotterdam	
Lecturer on Basic Econometrics for Data Analysis	201'
Erasmus School of Economics, Erasmus University Rotterdam	
Instructor for Seminar "Advanced Corporate Finance: Corporate Governance"	
	2017 to 2018
Graduate level course, Erasmus School of Economics, Erasmus University Rotterdam	
Guest Lecturer on Data Analysis with STATA	201'
Graduate level course, Erasmus School of Economics, Erasmus University Rotterdam	
Thesis Supervisor for 5 Master and 1 Bachelor Students	2016 to 201'
Erasmus School of Economics, Erasmus University Rotterdam	
Instructor for Seminar "Advanced Corporate Finance: Corporate Governance"	
	2016 to 201'
Graduate level course, Erasmus School of Economics, Erasmus University Rotterdam	
Thesis Supervisor for 14 Master Students	2015 to 2016
Erasmus School of Economics, Erasmus University Rotterdam	
Teaching Assistant for Course "Corporate Finance Theory"	201
Graduate level course, Tinbergen Institute	
Teaching Assistant for Course "Statistics"	2012
Graduate level course, Tinbergen Institute	

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