Peilin Yang

Curriculum Vitae
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EDUCATION

Nankai University   China

Admitted on basis of performance on national college admissions exam (top 0.7%)

B.A. in Economics   Jun. 2017- Apr. 2021

- GPA: 3.80/4.00 (*Major* 3.86/4.00) (Peking University Algo)
- With *the Highest Honor for Economics Research*

PUBLICATIONS AND ACADEMIC RESEARCHES

2020 [link]   Social Planner, Industrial Structure and Uncertainty for COVID-19
> *Peilin Yang, Xiaowei Chen*
> **SIAM Journal on Control and Optimization** *(R&R)*

2020 [link]   Shock Response of Fully Funded System: HANK Framework
> *Peilin Yang*
> *Working Paper (Revising)*

2020 [link]   Numerical solution and parameter estimation for uncertain SIR model with application to
COVID-19 pandemic
> *Xiaowei Chen, Jing Li, Chen Xiao and Peilin Yang*
> **Fuzzy Optimization and Decision Making**

2019 [link]   China's Policy Instruments: Tax Reduction, Retirement Prolonging and Welfare Changes
> *Peilin Yang*
> *Working Paper (Revising)*

RESEARCH EXPERIENCE

Harvard University (Department of Economics)

Research Assistant to Professor **David Y. Yang**   Mar. 2020 - Presented

- Bureaucracy and Innovation (*Daron Acemoglu, David Y. Yang*)
  Data collecting, scraping and processing
- Data-intensive Innovation and the State: Evidence from AI Firms in China (*Martin Beraja, David Y. Yang, Noam Yuchtman*)
  Data collecting, scraping and processing

University of Illinois at Urbana-Champaign (UIUC)   Jan. 2020 – Oct. 2020

Research Associate to Professors **Runhuan Feng, Xiaowei Chen**

- Developing dynamic programming algorithm for insurance pricing
- Reinforcement Learning Model for predicting

Asian Development Bank

Project: ADB TA PRC# 3148: China Pension Reform   March. 2019 – Oct. 2019

- Using macro general equilibrium model to predict the effect of China's pension system reform
- I am responsible for the design and solution of dynamic programming numerical algorithm

China Operations Research Association

Research Assistant to Professor **Xiaowei Chen** and **Xiufang Li**   May. 2018 – May. 2019
- Using fuzzy mathematics and uncertainty theory to study the problem of asset liability matching
- Building stochastic optimal control method and programming large-scale numerical algorithm
- Stochastic process modeling for asset allocation of insurance companies
- Designing of stochastic simulation algorithm(solving PDEs)

WorldQuant (Quantitative Private Fund)

Independent researcher, Research Department   Feb. 2019 – Aug. 2018
- Using various methods to mine alpha factors to obtain excess return
- During my work, I have mined eleven alpha factors that have passed the fitting test and obtained certain benefits
- The main method is to use fundamental analysis, behavioral financial analysis and derivatives trading analysis to judge the stock market, so as to find the information that can reflect the stock price

CONFERENCE AND SEMINARS ORGANIZATION

Operations Research Society of China **(*Tsinghua University*)**   Aug. 2020
- Report topic: ***Numerical solution to higher dimensional differential equations***

Operations Research Society of China **(*Tsinghua University*)**   Sep. 2019
- Report topic: ***Uncertainty CRRA Model and Risk Aversion***

Summer Seminars of Computation and Economics (***Shanghai University of Finance and Economics***)   Jul. 2019
- Take courses of *Peter Glynn* (***Stanford University***) , *Weijie Su* (***Upenn Wharton Business School***), *Zeyu Zheng* (***UC Berkeley***), *Yinyu Ye* (***Stanford University***)

TEACHING EXPERIENCE

Nankai University

Teaching Assistant to *Xiaowei Chen*   Jul. 2019-Nov. 2019

Advanced Macroeconomics Ⅰ (Ph.d. Level)
- Responsible for explaining economic growth, general equilibrium and numerical algorithms in macroeconomics

Stochastic Analysis and Optimal Control Theory (Ph.d. Level)   Jan. 2020-Jul. 2020
- Responsible for explaining and coding for HJB equations and Dynamic Programming

SELECTED AWARDS AND HONORS

Chinese College Students Mathematics Competition   Nov. 2018
- Win first prize (top 3%)

China Undergraduate Mathematical Contest in Modeling   Oct. 2018
- Win first prize for National-Class (top 3%)
- A model about the heat transfer in different media (the main problem is about PDE numerical algorithm (finite difference), and I'm responsible for modeling and programming)

Chinese Mathematical Modeling Competition Award   Aug. 2018
- Get the Best Thesis Award (top 0.5%)
- A model about quantitative the attractive force of a city. The main methods are PCA and neural networks, and I'm responsible for modeling and programming

American College Students Mathematical modeling competition   Jan. 2018
- Win secondary prize (top 15%)
- A model about environmental costs (the main problem is about ODE dynamic system, and I'm responsible for modeling and programming)

COMPUTER AND LANGUAGE SKILLS

- Programming language & Software
  Highly Proficient: Python (Data Processing, Plot, ArcGIS, Numerical Computation, Web Scraper)
  MATLAB, Stata, LaTex, R (ArcGIS, GeoDa), Julia, SQL
  Familiar: ArcGIS, C++, GAUSS, HTML, Linux