# PEILIN YANG

Curriculum Vitae

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GitHub: https://github.com/TTecLinc

## 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)

## 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** *(Accepted and Revising)*

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 Yang**                                                    Mar. 2020 - Presented

- Bureaucracy and Innovation
  *Daron Acemoglu, David Yang*
  - Data collecting, scraping and processing
  - Using Python (bs4, selenium) and OCR API to scrape big data
  - Assist to build and maintain large database (MySQL, PostgreSQL)

- 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 - Presented

Senior Research Assistant to Professor **Runhuan Feng**

- Developing dynamic programming algorithm for insurance pricing
- Reinforcement Learning Model for predicting
- I am responsible for managing over 10 people in a team

**Asian Development Bank**

With Professor *Xiufang Li*                                                                           July. 2019 – Oct. 2019

**ADB TA PRC# 3148: China Pension Reform Project**

- Using large-scale OLG 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 Associate Professor *Xiaowei Chen*                    March. 2019 – May. 2019
- Using fuzzy mathematics and uncertainty theory to study the problem of asset liability matching
- I am responsible for learning stochastic optimal control method and programming large-scale numerical algorithm

Research Assistant to Professor *Xiufang Li*                    May. 2018– Jul. 2018
- Stochastic process modeling for asset allocation of insurance companies
- I am responsible for the design of stochastic simulation algorithm(solving PDEs)

**WorldQuant (Quantitative Private Fund)**                    Part-Time

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,Yinyu Ye*(**Stanford University**), *Weijie Su*(**Wharton Business School**), *Zeyu Zheng* (**UC Berkeley**)

## TEACHING EXPERIENCE

**Nankai University**

Teaching Assistant to *Xiaowei Chen*                    Jul. 2019-Nov. 2020
**Advanced Macroeconomics** Ⅰ **(Ph.d. Level)**
- Responsible for explaining economic growth, general equilibrium and numerical algorithms in macroeconomics

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

## SELECTED AWARDS AND HONORS

**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

**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 College Students Mathematics Competition** Sep. 2018
- Win first prize (top 1%)

**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