# 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 2017-2021

- GPA: 3.83/4.00;

## PUBLICATIONS AND ACADEMIC RESEARCHES

2020 Social Planner, Industrial Structure and Uncertainty for COVID-19
***Peilin Yang***, *Xiaowei Chen*
*(submitted to* **SIAM Journal on Control and Optimization***)*

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

2020 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** (Accepted)

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

## RESEARCH EXPERIENCE

**Harvard University** (Department of Economics)
Research Assistant to Professor **David Yang** (Main mentor) Mar. 2020 - Presented

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

**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

**Energy Policy Institute at the University of Chicago (EPIC) -China**
Research Assistant Jan. 2020 - Feb. 2020
**Research on the effects of climate (precipitation, temperature) and region on fertility and mortality in Japan**

- Using fixed effect model to study the influence of climate factors on demographic in Japan in recent ten years (including individual fixed effect and time fixed effect)
- I am responsible for data processing and building a simple measurement model for analysis (including geographic data and time series data)

**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

**Nankai University (Department of risk management and insurance)**
Research Assistant to Associate Professor ***Xiaowei Chen*** (Secretary General of China Operations Research Association - uncertain systems branch) March. 2019 – May. 2019
**Research on risk modeling and optimization of supply chain under uncertainty system framework (National Natural Science Foundation of China i.e. NSFC)**
- 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

**Nankai University (Department of risk management and insurance)**
Research Assistant to Professor ***Xiufang Li*** (Director of China Association of Actuaries) May. 2018– July. 2018
**Research on economic capital prediction and optimal allocation of insurance companies (National Natural Science Foundation of China i.e. NSFC)**
- 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)**
Independent researcher, Research Department Feb. 2019 – Aug. 2019
- 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 (Department of risk management and insurance)**
Teaching Assistant to ***Xiaowei Chen*** Jul. 2019-Nov. 2020
**Advanced Macroeconomics Ⅰ**
- Responsible for explaining economic growth, general equilibrium and numerical algorithms in macroeconomics

## SELECTED AWARDS AND HONORS

**Chinese Mathematical Modeling Competition Award** August. 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** October. 2018

- Win secondary prize for State class (top 5%)
- 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

**American College Students Mathematical modeling competition** January. 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

**Chinese College Students Mathematics Competition** September. 2018

- Win third prize (top 10%)

## 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
  **Familiar**: ArcGIS, C++, GAUSS, HTML, SQL