



## education

### phd | statistics

u south carolina | 2018-present

- gpa: 3.5
- Passed qualify exam

### ms | actuarial science

columbia university | 2018

- gpa: 3.5
- Member of ASCU

### bs | econ & math

u southern utah | 2016

- Math gpa: 3.6, Econ gpa: 3.5
- Minor in finance: 3.6
- Dean's List, May 2016

## highlighted skill

### stat/math

probability & statistics inference  
extreme value catastrophe modeling  
generalized linear models  
stochastic processes and time series  
high dimensional data  
Bayesian model

### computer & data science

decision tree random forest  
clustering and classification  
deep neural network  
natural language processing & embedding  
web data scraping & extraction  
algorithm engineering at CS phd level

### languages & packages

experienced: python & r  
tensorflow • sklearn • scrapy • numpy •  
pandas • anaconda  
ggplot • data.table • reticulate • magrittr  
others : sql • matlab • sas

### actuarial exam

p • fm • ifm • srm

## teaching

### u south carolina | lab instructor

fall 2018 - present

- Teach three sections of STAT 201 Lab, 24 people each.
- Write blog style statistical learning tutorial for students to learn.

## experience

### yu chun business consulting

 actuarial consultant | summer 2019 | shanghai

- Nature language processing together with deep learning for automated Underwriting. (Bert with pretrained embedding via tensorflow)
- Dialogue based insurance recommendation system to discriminate which insurance patient can buy based on past health conditions. (q & a classification)
- Automated web data scrapping for all life insurance companies selling Critical Illness & health & accident products in China, via python Scrapy.
- Product valuation via regular actuarial life-table assumptions

### guy carpenter

 research assistant | summer 2017 | new york

- Develop Poisson regression model to predict actual claim count, with past 30 years of data.
- Calculate adjusted loss ratio volatility and correlation between 15 different line of business, for 1400 companies.
- Drafted weekly research reports to present to chief actuary Mr. Steve White.
- Use SQL language to manipulate raw data and construct Access database.

### casino game maker

 math modeling intern | winter 2016 | utah

- Evaluate winning strategy for different 52-deck card games and test possible variant of rules, via excel VBA decision tree simulation and conditional probabilities.
- Investigate in the game rules and set up additional bonus for gamblers to balance expected return and adjust volatility.

### new china life

 actuarial internship | summer 2014 | shanghai

- Clean accident insurance premium data. Summarize regional data.
- Health insurance underwriting.

## university of south carolina

### image classification project

 winter 2019

- Utilized ensemble voting with traditional statistical methods and convolutional neural network to do few shot Microscopy image classification.

### time series bootstrap project

 spring 2019

- Interest rate ARIMA model with block and residual bootstrap simulation.

### medical expenditure project

 fall 2018

- PCA and lasso variable selection from a list of 2000 variables(features).
- build binomial hierarchical model to predict occurrence of smoking related disease and analysis societal economic cost of smoking

## columbia university

### ego-network project

 spring 2018

- Utilize a Bayesian stochastic membership model to cluster social media friendship network data. Via EM and MCMC.

### quantitative risk management project

 spring 2017

- Black Scholes model to predict option price for stock data. Take in consideration of bid-ask spread and changing implied volatility with time of maturity.

## southern utah university

### teaching & research assistant

 spring 2015

- Scrape data from different real estate website using student's address, for Dr. Price's research on student's enrollment.
- Serve as Teaching assistant for Math 1040 Algebra (60 people).