

# JINCHANG FAN

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## 🎓 EDUCATION

**Central University of Finance and Economics (CUFE), Beijing, China** 09/2014 – Present

*Candidate for B.S. in statistics*

- Overall GPA: 87.21/100, rank 7/30, WES GPA 3.73/4
- Main Courses: Probability Theory and Mathematical Statistics (91.5), Regression Analysis (86), Data Mining (92), Real Analysis (92)

**Uppsala University, Uppsala, Sweden**

09/2016 – 01/2017

*Exchange program in statistics*

- Main Courses: Applied Statistical Methods (95), Time Series Analysis (92)

## 🔪 RESEARCH AND TEACHING EXPERIENCE

**Usage Based Insurance Model**

03/2017 – 11/2017

*supervisor: Associate Prof. Rui Pan, Central University of Finance and Economics*

- Paper: Yuxuan Zhang, **Jinchang Fan**, Rui Pan, Liang Huang, "Usage Based Insurance Model with Point of Interest Data" (ready to submit)
- Calculated factors to measure driving behavior, including average velocity, standard deviation of steer position, count of harsh brakes, proportion of low-speed driving, and time preference of driving, etc. Logistic regression model was established based on the factors to predict claims of accident. AUC of the model achieves 0.58
- Introduced Point of Interest data as predictors. Points of Interest nearby the start and end point of trips were collected from Sina company and classified into 117 labels. Frequency of each label was calculated as supplementary predictors of model which improves prediction accuracy by 5% (from 0.58 to 0.63)
- Wrote introduction and data description part of the paper by LaTeX

**Analysis of Internet of Vehicle data**

10/2016 – Present

*Research Assistant to Associate Prof. Rui Pan, Central University of Finance and Economics*

*team leader in a three-people team*

*Business cooperation with Cihon company, an Internet of vehicle data provider. Dealt with data collected from the vehicle every second.*

- (in progress) Developed algorithm to report vehicle accident automatically, based on complex logical gate over detection of instant acceleration, vehicle velocity, and door state. Till now it performed accuracy of 50 percent
- Summarized path characters to activation of driving, including regularly visit points, repeated path every day, and ratio of mileage and translocation. These characters could distinguish patterns of driving habits and classify drivers into commuting, long haul, or taxi
- Depicted user portrait and employed clustering analysis to divide users into 5 different groups. Users in different groups represented distinct difference in risk of accident. It was considered as risk factor in the pricing of Usage Based Insurance

**Law of people flow based on Location Based Service data**

08/2016

*team member in a six-people team*

- Cleaned 1.8GB's raw data of sign-in record into dataframe in R program for later analysis by regular expression and another data cleaning skills. Provided data visualization by ggplot2 package to represent cross-sectional flow distribution
- Established decomposition of time series models to characterize flow distribution, divided subway station into two groups according to their obvious difference in people flow on weekday and vacation time

**Teaching Assistant to Online Statistics Summer Camp of CluBear**

07/2017 – 08/2017

- Wrote data visualization tasks in R, including description analysis and presenting data on map
- Graded reports of students
- Commented on their final project and provided suggestions

## Teaching Assistant to Linear Regression Course

02/2017 – 06/2017

- Answered questions of sophomores about R on the lab

## WORK EXPERIENCE

### Usage Baesd Insurance data summary and analysis

10/2017 – 11/2017

*analyst in a collaborating group of China Insurance Information Technology Management*

- Collected Internet of Vehicle data from seven different In-Vehicle-Data-Recorder data companies
- Verified data quality, removed illegal records and labeled illegal data recorders
- Calculated factors for further modeling, including accumulated mileage, active time interval, and driving behaviors

### Modeling to make quantitative prediction in financial market

08/2017 – 10/2017

*intern analyst in Belt & Road (Beijing) Technology, wholly-owned financial technology subsidiaries subsidiary of Genial Flow Asset Management*

- Collected data of annual report of companies, open market price, sales, and monitoring data of upstream and downstream from Wind information in R language
- Established regression model to predict overall operating conditions of companies in aimed industries, including business scale, cost, profits and cash flow. All the models performed accuracy over 80 percent.
- Applied iterative sure independence screening method to select variables, reduced the time of establishing a field model to 25 minutes
- Models were collected into Genial Flow information bank, codes are still active now

### The China Health and Retirement Longitudinal Study

07/2015 – 08/2015

*pioneer in a interview team, honored as outstanding interviewer*

*It is a face-to-face interview with elders (over 55 years old) in rural areas all over China, conducted by National School of Development, Peking University. The interview includes detailed questions on all aspects, covering their current health, pathography, medicare, and daily care. As a longitudinal study, the previous respondents must be found and interviewed again.*

- Served as team guide, including planing trips, ordering shelters, guided other team members to respondents' residence
- Complicated interview for 32 respondents in 7 villages in 3 different area in Shanxi Province
- Performed general medical examination to respondents with the help of local hospital, including physical examination and blood tests
- Interviewed local government officer concerning the medicare and pension policy and effect of implement

## EXTRACURRICULAR ACTIVITIES

### Minister of Propaganda Department in School of Statistics and Mathematics

06/2015 – 06/2016

- Trained fresh staffs in department affairs and required skills, including photography and news writing
- Organized about 15 ideological publicity activities, such as 'Promotion of World Earth Day', 'Treasure Hunt in library'. Over 100 students attended
- Led the annual report of school, reviewed all the activities hold this year and the effect of ideological publicity
- Published News with photograph for all activities in school Scheduled staff with tasks including writing report, taking photograph and video recording. Established standard work flow for daily work.
- Designed and accomplished a five-minute propaganda video individually

### Staff of Propaganda Department in School of Statistics and Mathematics

09/2014 – 06/2015

- Took photograph for activities in school
- Organized activities including "Thank you, teacher!" and freshmen welcome party

### Volunteer work in China Science and Technology Museum

2014 – 2016

- Explicated scientific principle behind displayed instruments to kids
- Kept order of the museum

## SKILLS

- Programming Languages: R > Python, LaTeX > SPSS, Eviews > C, SQL
- Languages: TOEFL 105, GRE Verbal: 155, Quantitative: 170, AW: 3.0