

# Xinyu Zhang

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## Professional summary

Data analyst equipped with actuarial science knowledge in healthcare industry with two years of experience. Competencies include BI reporting, behavior analysis and business strategy analysis. Passionate about statistical machine learning.

**SOA ASA Candidate:** Passed P, FM, MFE, MLC, C exam and all VEE components

## Education

MS in Statistics	University of Texas at Dallas	GPA: 3.9	Expected: May 2019
BS in Mathematics, Minor in Finance	University of Arizona		Dec 2016

## Experience

**Data Analyst** 2018-05 – Present

Chinese Community Health Care Association San Francisco, California

- Design KPI metrics for providers. Analyze their performance using A/B testing in R. Make suggestions of changes in their capitated payment. Test the impact of the adjustments before submitting for production.
- Maintain and visualize the flow of monthly claim expense and revenue using MS SQL, Tableau and draw.io.
- Develop flash reporting in MS SQL to enable near real-time business risk management.

**Data Analyst Intern** 2017-01 – 2018-04

Chinese Community Health Care Association San Francisco, California

- Developed interactive profit testing solution in SQL and MS Excel to help transform from fee for service payment to capitated payment system.
- Delivered MS SQL database solutions to categorize monthly claims into different service categories for expense management.
- Studied Hierarchical Condition Categories (HCC) based risk score from CMS in SAS and use it to verify payment received from insurance companies.

**Actuarial Intern** 2016-05 – 2016-08

Anxin Agricultural Insurance Company Shanghai, China

- Assisted in writing quarterly solvency report to China Insurance Regulatory Commission (CIRC) under the scheme of China Risk Oriented Solvency System (C-ROSS).
- Participated in pricing and loss ratio review on products in design.

## Projects

- Predict Prudential life insurance risk class using random forest, gradient boost tree, GLM elastic net, SVM and neural network ensemble.
- Shiny app simulates midterm election result under various contamination settings.
- Predict cryptocurrency price using classic time series model (ARIMA, ARFIMA, GARCH...) and long term short term deep learning techniques.
- Predict Airbnb listing price and occupancy rate based on house features using decision tree, neural network and regression.
- Analyze the effect of right-to-carry laws on crime rate using fixed effect regression model with instrumental variables.

**Skills** SQL, Excel, R, R markdown, Shiny app, Python, Stata, Certified Base Programmer for SAS 9, MATLAB