Huanyi (Emily) Zhang

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EDUCATION

University of California, Berkeley Graduation Date: Dec 2015
Bachelor of Arts, Economics

Bachelor of Arts, Statistics *Cumulative GPA:* 3.6

Relevant Coursework:
Macroeconomics, Microeconomics, Econometric Analysis, Labor Economics, International Trade, Financial and Behavioral Economics Probability, Statistical Analysis, Time Series, Reproducible and Collaborative Data Science, Bayesian Statistics, Game Theory, Machine Learning, Linear Modeling, Corporate Finance, Investments, C++, Python, SQL, R, HTML, CSS, and JS, Data Structures, Java

COURSE PROJECTS

CTR Hadoop MapReduce Data Analysis | UCB STAT Professor Yannet Interian Aug 2014 – Dec 2014
· Collaborated 12GB of user dataset from KDD CUP 2012 and analyzed CTR (Click-Through Rate) based on user info and query
· Made use of Hashtable to efficiently organize key-value for each word in Mappers, then distributed the processed data to Reducers.
· Predict and mining CTR of Ads based on machine learning technique including Naive Bayes Algorithm, logistic regression, AUC, decision trees and bootstrap simulation using Hadoop and Amazon EC2, S3 server, AWS S3, Elastic MapReduce in Python.

Database Design and Analysis | UCB IEOR Professor Ken Goldberg Aug 2014 – Dec 2014
· Designed a database system for BerkeleyDelivers Company that takes track of relationships of data working in a team of ten.
· Manipulated data in MS Access by using SQL and analyzed queries based on optimization and time-side analysis in Python and R.
· Analyzed restaurant and driver efficiency and predict the delivering time by using linear regression with dummy variables.

Time Series Analysis | UCB STAT Professor David Brillinger Nov 2014 – Dec 2014
· Analyzed and predicted the time series data of top movies' weekly box office from 2000 to 2014.
· Implemented and fitted the data to Linear, BoxCox, Polynomial, Seasonal, and ARIMA Model to get the white noise residuals.
· Residuals diagnoises from time-side and frequency-side through ANOVA, qqPlot, ACF, PACF, periodogram, spectrum, AIC, BIC, Shapiro, Runs, and Ljung-Box tests to make the prediction lie within 95% confidence interval.

Security Analysis and Stock Valuation | UCB Haas Professor Dmitry Livdan July 2014
· Evaluated a public corporation common stock through its current ratios, P/E ratios, and other financial ratios in Excel spreadsheet.
· Concluded whether the stock price has been fairly priced by analyzing on the company's SWOT, product mix and risk factors.

U.S. Flights' Delay Time Analysis | UCB STAT Professor Fletcher Isber Nov 2013
· Obtained 10 years raw data (total 10GB) from SCSG (Statistical Computing Statistical Graphics) website, cleaned up and extracted related data and converted them into CSV format in R, written the formal report and presented the final results in HTML.
· Analyzed multiple factors that resulted in U.S. domestic flights delay, including airport size, month, and date.

EXPERIENCE

Passed the actuarial Exam1/P Probability established by SOA/CAS/CIA Jan 2014
Passed the actuarial Exam2/FM Financial Mathematics established by SOC/CAS/CIA June 2014
Fifth Annual Actuarial Case Competition *(P&C Specialist)* **|** UCB Cal Actuarial League May 2014
· Team (4 members) emphasized on calculate premium and base rate influenced by model year relativities and deductible relativities in an auto insurance model. Analyzed seasonality patterns of data and calculated IBNR.
· Created interest rate risk, credit risk, mortality risk modeling to estimate 99th percentile loss using DCF method and calculated the return on capital on the life insurance product.

Math Tutor | Santa Barbara City College, CA Aug 2012 – May 2013
· Solved and explained students' advanced mathematics questions especially focus on advanced math problems
· Explored and enhanced advanced math concepts and comprehension with other math tutors and faculties, meanwhile strengthened teaching technique and communication skills.

SKILLS

Computer Programming
· Proficient in Microsoft Office including Word, Excel, Access, Visio, and PowerPoint
· Knowledge in C++, R, Java, Python, SQL, SQLite, UNIX, and STATA
· Proficient in Web design of HTML, KML, CSS, XML, and JS
· Proficient in design, color filling and photo editing using Photoshop, Illustrator and Lightroom

Languages
· Strong verbal and written communication skills in English and Chinese Mandarin.