

# Huanyi (Emily) Zhang

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## EDUCATION

**University of California, Berkeley**

Graduation Date: Dec 2015

Bachelor of Arts, Economics

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Cumulative GPA: 3.5

### Relevant Coursework:

Macroeconomics, Microeconomics, Econometric Analysis, Urban Economics

Probability, Statistical Analysis, Time Series, Reproducible and Collaborative Data Science, Bayesian Statistics, Game Theory

Corporate Finance, Investments, Programming using C++, Python, SQL, R, web design with HTML, CSS, and JS

## COURSE PROJECTS

**Click Through Rate Data Analysis** (*In progress*) | UCB STAT Professor Yannet Interian Aug 2014 - Present

- Collaborated 12GB of data and analyzed CTR based on gender, age, advertisement's depth, position and the level of match to the query in machine learning technique including regression analysis, decision trees with binary splitting, and bootstrap simulation.
- Mining massive dataset by writing few iterations of MapReduce using AWS S3 and Elastic MapReduce in Python.

**Berkeley Delivers Database Design** (*In progress*) | UCB IEOR Professor Ken Goldberg Aug 2014 - Present

- Design a database system for BerkeleyDelivers Company that takes track of relationships and data of customer, payment, restaurants, employee, payments, feedback, advertisements, menu item, coupon, location, order, working in a team of ten.
- Manipulated data in MS Access under their relationships and analyzed queries based on optimization and time series analysis in SQL.

**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 and CAS** Jan 2014

**Passed the actuarial Exam2/FM Financial Mathematics established by SOA and CAS** June 2014

**Actuarial Case Competition** (*Property&Casualty Specialist*) | UCB Cal Actuarial League May 2014

- Our 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.

**Propaganda Leader** | Beijing National Day School, Beijing, China 2002 – 2011

- Leader of a propaganda department with main jobs include design, advertise and hand painting propaganda board, school clubs' posters and flyers, book reservation card, and organize school sports meeting's march-in ceremony
- Operated and managed a popular, formal, legal stationary store in school bookstore.

## SKILLS

### Computer Programming

- Proficient in Microsoft Office including Word, Excel, Access, Visio, and PowerPoint
- Knowledge in C++, R, Python, SQL, UNIX, and STATA
- Proficient in Web development of HTML, KML, CSS, XML, and JS

### 2-Dimensional Design

- Proficient in design, color filling and photo editing using Photoshop and Lightroom

### Languages

- Strong verbal and written communication skills in English and Chinese Mandarin.