

# Jacob M. Merrell

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## EDUCATION

**Brigham Young University**, Provo, UT

*Bachelor of Science, Actuarial Science*

- Cumulative GPA 3.91
- I also completed master's level coursework in such topics as data mining, statistical learning, optimization, linear models, covariance structures, and simulation studies

## EMPLOYMENT HISTORY

**Graduate Research Assistant** *Brigham Young University*

Provo, UT

September 2017 – August 2018

- Involved in data denumeration project which strips data of individual information yet preserves marginal totals
- Used results of a matching algorithm and SQL to compare claims costs for Vioxx and Celebrex drug users to similar persons who did not take Vioxx and Celebrex

**Actuarial Analyst** *Milliman*

Salt Lake City, UT

December 2015 - August 2017

- Helped price individual and small group rates for multiple carriers, as well as generate their rate tables
- Aided in formulating accrual recommendations for an employer by calculating the changes in large claim experience
- Developed a process to streamline the creation of pro forma scenarios which showed high and low estimates for the gain/loss

**Actuarial Intern** *SelectHealth*

Murray, UT

May 2015 - August 2015

- Analyzed claim distributions and ran simulations to price a reinsurance product
- Created automated monthly reports in Excel; this included writing code to query Oracle SQL using VBA
- Created a web scraping tool to export data embedded in HTML

**Statistical Research Assistant** *Brigham Young University*

Provo, UT

January 2015 - August 2015

- Headed 28 student research assistants for Brigham Young University's statistical program
- Involved in a project to determine mortality rates of U.S. immigrants and pioneers who journeyed westward
- Constructed a name matching algorithm to identify immigrants

**Statistics/Property Valuation Intern** *Church of Jesus Christ of Latter-day Saints*

Salt Lake City, UT

May 2014 - Dec 2014

- Created VBA tools to dynamically optimize decision making for the land acquisition and sizing of Church temples worldwide; helped save \$72 million for organization
- Analyzed economic indicators and created a multiple regression model to predict land values
- Designed spreadsheet to automatically adjust accounts due to changes in foreign currency rates

## CERTIFICATIONS AND EXAMS

- Financial Mathematics (FM) Exam - December 2014
- Probability (P) Exam - July 2015
- Models for Financial Economics (MFE) Exam - November 2015

### **SKILLS / STRENGTHS**

- R, SQL, Python, VBA, Access, SAS
- Wrote a script in R that uses Markov Chain Monte Carlo methods to decipher encrypted messages
- Public speaking; addressed an audience comprised of members of the Federal Reserve Bank, and 500 other students
- Fluent in Spanish (speaking, writing, and reading)

### **MEMBERSHIPS/ INTERESTS**

- Member, Collegiate Investment Society responsible for the asset allocation of a \$5 million endowment fund
- Piano player
- Sports enthusiast
- Computer programming