# VICTORIA J. KWAN

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## DATA SCIENCE ANALYST

**Leverage statistical modeling and solutions to realize strategic optimizations.**

Skilled at predictive and inferential modeling with its diverse applications in real world problems. Enthusiastic leader in operational risk management coordinations and scientific research and communications. Expert in translating complex processes into precise and actionable steps.

Risk Management | Machine Learning | Collaborative Filtering | A/B Test | Logistic Regression

Evaluation of Actuarial Models | Financial Economics | Data Mining | SQL | Spark

## PROGRAMING SKILLS

Languages:          Python, PostgresSQL, R, SAS, LaTex, SPSS, Excel

## EXPERIENCE

**GALVANIZE,** SAN FRANCISCO, CA                                        Oct, 2017 - Feb, 2018

**Data Science Immersive,** Data Science

- 3-month, 700+ hour data science program. Main technologies used: Python, SQL, Pandas, Scikit-Learn, MongoDB, Spark. Work included pair programming, group projects, and a solo capstone.
- [CAPSTONE PROJECT — "A HOTEL RECOMMENDER":](#)
  - Optimized search problem in finding the k Nearest Neighbors by applying an customized version of approximate k-dimensional tree. Powered with parallelized computing modules.
  - Runtime for dataset with 1 million user reviews and 10,000 hotels was reduced to 5 micro-seconds from 5 hours, when searching for similar hotels based on user preference.
  - Trained and tested hotel rating data on Singular-Value Decomposition, Baseline, Non-Matrix Factorization, SlopeOne and CoClustering models. Best model has a precision of 95% and recall of 70%.

**SAN FRANCISCO STATE UNIVERSITY**, San Francisco, CA                    Jan, 2014 - Jul, 2015

**Graduate Teaching Associate**, Mathematics

- Designed and implemented real world models that improved class participation by 30%.
- Received special recognition from students: "excellent teacher", "helpful with explaining steps", "understanding".

**MANDARIN ORIENTAL HOTEL GROUP**, Shanghai, China                      Oct, 2012 - May, 2013

**Coordinator**, Risk Management

- Assisted the security department focusing on developing management policies and implementing protocols to improve the security operations of the company.
- Streamlined operational forecasts for the Risk Committee by employing data analysis.
- Collaborated with other company management to develop methods of managing the company's risks, drastically reducing the potential issues and liability to the company.

## EDUCATION

**Master of Arts**, Mathematics, San Francisco State University, San Francisco, CA          2016

INDEPENDENT PROJECTS:

- "Stochastic Processes in Reserves for Insurance Claims", *received A*          2016
  - Conducted asymptotic analysis of portfolio using inhomogeneous Poisson process.
- "Assessing Stock Markets on Multi-scales Using Wavelets", *received A*          2015
  - Measured hedge ratio between the stock and futures prices using Wavelet Transform.

**Bachelor of Science**, Mathematics, East China Normal University, China          2012