

# Jeremy Kauwe

Data Scientist

## 📁 Employment History

### Senior Quantitative Data Scientist at Umpqua Bank, Remote

2020 — Present

- Used bootstrapping to develop value at risk for short-term liquidity forecasts, reducing interest rate costs by 10%.
- Applied Bayesian methods on CECL models to reduce forecast uncertainty in the probability of default by 30%.
- Conducted cointegration analysis and regression on hedging models for loan locks, reducing mean squared error by 10%.
- Created a loan prepayment benchmark with Kalman filters and ensemble methods, achieving a 20% reduction in mean squared error. This model became the champion model based on performance.
- Improved the underwriting process for small business loans using decision trees, increasing precision by 15% on loan approval classifications.

### Quantitative Data Scientist at Umpqua Bank, Remote

2020 — Present

- Ensure compliance with Fed's SR 11-7 guidance, validating models for regulatory and statistical accuracy, resulting in fewer model audits from regulators.
- Analyzed macroeconomic data from Moody's Analytics and presented clear, noise-free scenarios to the CFO and executive board to aid in selecting the right baseline and stressed scenarios for the bank's models.

## ★ Projects

### Quantitative Researcher, Portland

2016 — 2020

- Conducted quantitative research applying modern econometrics and machine learning methods to statistical arbitrage in equities using Python and R.

## 🎓 Education

### MS Statistics, Portland State University, Portland

2016 — 2019

- Advanced courses in econometrics, time series, machine learning, statistical analysis, probability, and computer programming.

### BS Economics, Southern Oregon University, Ashland

2013 — 2016

- Courses in macroeconomics, microeconomics, and econometrics.

## Details

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## Links

[www.linkedin.com/in/jeremy-kauwe](https://www.linkedin.com/in/jeremy-kauwe)

## Skills

R, Python, C++, SQL

Supervised Machine Learning

Un-supervised Machine Learning

Regression analysis and Design of Experiments

Bayesian Statistics

Econometrics, time series, panel data

Probability and Mathematical Statistics

Back testing models

Financial Modeling

Ongoing model performance evaluation

Data visualization

Statistical modeling

Macroeconomic Forecasting

Predictive modeling

Business Intelligence

Teamwork, Leadership, communication

Planning, time management

Abstract thinking for problem solving