MATTHEW KAYE

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in kayem20

mrkaye97

EXPERIENCE

Data Scientist

CollegeVine

iii Sept 2020 - Present

- Boston, MA
- First member of the CollegeVine data science team

Baseball Operations Fellow

Baltimore Orioles

- **Mar 2020 Sept 2020**
- Baltimore, MD
- Created a fully Bayesian, simulation-based projection system for MLB player performance over a six year time horizon
- Created an Gradient Boosting- and simulation-based projection system for a minor league player's MLB performance
- Created a gamma hurdle regression framework to predict free agent salaries
- Implemented a robust-to-multimodality version of the Metropolis-Hastings algorithm to determine the optimal way to position our defense against a specific hitter
- Worked on a variety of day-to-day data science tasks related to game strategy and player evaluation

Research Intern

Federal Reserve Bank of St. Louis

- **J**une 2019 Aug 2019
- St. Louis, MO
- Prepared new data series from the BLS, IMF, and more for upload to FRED, using pandas for data wrangling
- Fit neural network and multinomial naïve Bayes models to apply correct descriptive tags to FRED series to improve search performance

Econometrics Teaching Assistant

Carleton College Department of Economics

- **Mar 2019 June 2019**
- Northfield, MN
- Ran semiweekly sessions to help econometrics students master course material, improve their R and LATEX skills, and hone their statistical intuition.
- Helped students complete homework assignments and projects and prepare for exams
- Graded homework assignments

Statistics Lab Assistant

Carleton College Department of Mathematics

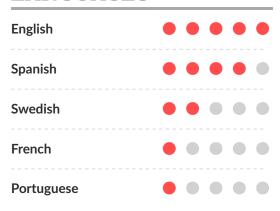
- **Sept 2018 June 2019**
- Northfield, MN
- Explained and walked through examples of concepts in statistics courses, including (but not limited to) data cleaning, hypothesis testing, exploratory data analysis and visualization, and modeling
- Worked with students on important R and debugging skills

SKILLS

R Python Git SQL
Tableau Keras Java Excel
Pandas / Numpy / Scipy Tidyverse

Data Wrangling Data Visualization
Bayesian Modeling and Inference
Machine Learning

LANGUAGES



EDUCATION

B.A. Economics and Mathematics

Carleton College

Sept 2016 - Nov 2019

Economics Thesis: The Effect of Transit on Life Satisfaction: A Multilevel Modeling Exploration of Urban Happiness

Mathematics Capstone: Dynamic Linear Models and the Kalman Filter

Choate Rosemary Hall

Sept 2013 - June 2016

INTERESTS

