

MATTHEW KAYE

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👤 mrkaye97

EXPERIENCE

Data Scientist

CollegeVine

📅 Sept 2020 – Present

📍 Cambridge, MA

- First member of the CollegeVine data science team. Responsible for establishing data science workflow best practices and providing easy-to-use data science tools and understandable explanations of data scientific concepts to other members of the team
- Clustered users with a modified K-Prototypes algorithm to allow for missing values in the cluster calculations
- Advised on CollegeVine survey conducting and analyzed results for use in published reports on college admissions
- Serving as a subject matter expert for everyday statistics- and data science-related questions

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

📅 June 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 intuitions
- Helped students complete homework assignments and projects and prepare for exams
- Graded homework assignments

SKILLS

Languages:

Java Python R SQL

Frameworks, Software, and Tools:

AWS brms caret
Docker Excel Git
Heroku Numpy Pandas
R Shiny Scikit-Learn Tidyverse

Data Science:

Bayesian Modeling and Inference
Data Wrangling Data Visualization
Machine Learning Statistical Inference
Time Series Modeling

LANGUAGES

English ● ● ● ● ●

Spanish ● ● ● ● ●

Swedish ● ● ● ● ●

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

Baseball Browsing r/AskReddit
Cooking Running Minimalism
Skiing Data Visualization
Fantasy Novels Solo Travel
Nature & Architecture Photography