

# MATT KAYE

mrkaye97.github.io

mrkaye97

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kayem20

## 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, building out modeling pipelines, helping teammates do rigorous, thorough data analysis, and explaining data scientific methods to other members of the team to democratize data science work at CollegeVine
- Transitioned our chancing algorithm (used by hundreds of thousands of students to get their chances at over 1,500 colleges and universities) away from a rules- and heuristics-based model to an ML-forward approach using feature engineering that incorporates expert knowledge of college admissions and rigorous testing and validation of the model
- Implemented a dashboard with sequential testing tools to help CollegeVine product managers run tests more quickly without sacrificing statistical rigor
- Serving as a subject matter expert for everyday statistics- and data science-related questions

### Open-Source R Developer

#### slackr & fitbitr

Oct 2020 – Present

- Current author and maintainer of *slackr*, an R package for connecting R to Slack with 210k+ downloads
- Author and creator of *fitbitr*, an R package that streamlines pulling Fitbit user data via the Fitbit API
- Responsible for all aspects of package development and maintenance, including general maintenance tasks, implementing new methods, improving error handling, writing unit tests and setting up checks in CI, writing descriptive documentation, and more
- Helping users work through bugs and questions submitted in issues, reviewing PRs, and doing other everyday package maintenance tasks

### 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
- Modeled free agent salaries with a gamma hurdle regression framework
- Contributed to a Markov Chain Monte Carlo approach to determining optimal shifts against opposing hitters
- Worked on a variety of day-to-day data science tasks related to game strategy and player evaluation

## SKILLS

### Languages:

Haskell Java Python R SQL

### Frameworks, Software, and Tools:

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

### 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