

# Andrew Rall

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To view selected projects and read more about skills and experiences visit [andrewr0498.github.io](https://andrewr0498.github.io)

## EDUCATION

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### UNIVERSITY OF CALIFORNIA-BERKELEY

*B.A. in Statistics with Applied Cluster in Computer Science, May 2020*

- Sports Analytics Group at Berkeley (SAGB) Projects Team Member
- Statistics Undergraduate Student Association (SUSA) Education Committee Member
- California Triathlon Team

## EXPERIENCE

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### CAL FOOTBALL CONSULTING PROJECT

*SAGB, Fall 2018 – present*

- Working with team of students to create match-up specific 4<sup>th</sup> Down decision-making model for the Cal Football Coaches
- Built web scrapers to collect data from Football Outsiders and other sports sites
- Wrote an algorithm to identify the n most similar offenses/defenses over the past k years given a certain opponent; addressed issue of not having enough consistent data for any single College Football team.
- Created heatmaps of 4<sup>th</sup> Down Decisions and conversion rates for teams over the past 17 years

### TIDYVERSE LECTURE

*SUSA, Fall 2018*

- Created lecture material on tidyverse, a collection of R packages designed for data science
- Presented material to class of 30+ students
- Turned lecture material into Shiny application that can be interacted with remotely

### LAB ASSISTANT

*Data 8 Course Staff, Summer 2018 – present*

- Help manage and teach class of 30+ students in an introductory data science course
- Provide one-on-one assistance for coding errors and conceptual misunderstandings

### RESEARCH INTERN, Massachusetts General Hospital (MGH)

*Division of Gastroenterology (GI), Summer 2017*

- Helped facilitate a data collection platform for a study conducted by the Clinical Chief of GI at MGH on Familial Adenomatous Polyposis (FAP)
- Filtered and extracted patient information relevant to the study based on certain indicators

### ENZYMATIC PROTEIN RESEARCH

*NDM-1 (New Delhi Metallo-beta-lactamase 1), Winter 2016 - Spring 2016*

- Researched the emergence and spread of the superbug NDM-1
- Participated in poster competition at the Milwaukee School of Engineering and presented research at the Marshfield Clinic Research Foundation

## SKILLS

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- Languages: Python, R (R Studio), Java, SQL, and HTML/CSS
- Statistical Methods: Bayesian Analysis, Hypothesis Testing, Linear Modeling, Machine Learning, Parameter Estimation, Reproducibility
- Other: Git, R Shiny, IntelliJ IDEA, Jupyter, Latex, Regex