Andrew Rall

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To view public projects and read more about skills and experiences visit andrewr0498.github.io

Education

University of California-Berkeley

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

Coursework: Stat 133 (Concepts in Computing with Data), Stat 134 (Concepts of Probability), Stat 135 (Concepts of Statistics), Stat 151a (Linear Modeling: Theory and Applications), Stat 159 (Reproducible and Collaborative Statistical Data Science), CS 61a (The Structure and Interpretation of Computer Programs), CS 61b (Data Structures), Data 100 (Principles & Techniques of Data Science)

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

Experience

**Cal football consulting project**

*SAGB* *Fall 2018 – present*

Working with team of students to create match-up specific 4th Down decision-making model for the Cal Football coaches to reference in-game

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 4th 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*

* Facilitated 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

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