# **Kunal Dutta**

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#### **EDUCATION**

# University of California, Berkeley

December 2021

Bachelor's of Arts, Computer Science | GPA: 3.59

Relevant Coursework: Data Structures; Efficient Algorithms and Intractable Problems; Discrete Mathematics and Probability Theory; Computational Structures in Data Science; Linux System Administration; Machine Structures; Linear Algebra

## **SKILLS**

Software Development: Python, Java (Android Studio, JUnit, GET requests), Git version control, C (learning)

Web Development: HTML, CSS, JavaScript (learning), Django (learning)

Data Analytics: Python (Pandas, Numpy), SQL, Microsoft Office, R (learning)

System Administration: Shell scripting, Linux/Unix, C (learning)

## **PROJECTS**

**NBA** Analysis

Personal/Club Project

July 2019 - Present

## https://github.com/kdutta9/nba-analysis

- Used linear regression to determine the value of NBA draft picks based on position, via statistics on production and career growth.
- Analyzed signings in free agency to generate grades based on projected yearly value compared to total salary.
- Tools Used: Python (SKLearn, Pandas, Numpy); Jupyter Notebook

#### **Statistics Course Guide**

Club Project

August - December 2019

#### https://github.com/SUSA-org/usa-website

- Designed and implemented a course guide for the statistics department in the style of a directed acyclic graph.
- Colored nodes of graph to indicate subject focus, added arrows for prerequisites, and highlighted related nodes when clicked.
- Tools Used: JavaScript (D3.js), HTML, CSS

## Gitlet

School Project December 2019

# https://github.com/kdutta9/coursework/tree/master/cs61b/gitlet (private)

- Implemented a lightweight version control system capable of tracking and committing file additions, modifications, and deletions.
- Created features to display status of repository, create branches, and revert to previous saved iterations of repository.
- Tools Used: Java (Files, JUnit, IntelliJ)

#### **Ebay Scam Detector**

# Hackathon Project (University of Washington Hackathon 2019)

October 2019

## https://github.com/kdutta9/FakesList

- Implemented heuristics and data analysis tools to flag potentially fraudulent EBay listings.
- Created a training and testing set by web scraping product details, using Beautiful Soup and WordNet.
- Tools Used: Python (BeautifulSoup BS4, WordNet, Pandas), Jupyter Notebook

#### **Privacy Guard**

Hackathon Project (Cal Hacks 5.0)

November 2018

#### https://github.com/kdutta9/PrivacyGuard

- Designed an application which sends GET requests to close incognito tabs when door opens.
- Used magnetic field sensing capabilities in Android phones to detect opening and closing of doors.
- Tools Used: Java (Android Studio, GET Requests)

# **EXPERIENCE**

# UC Berkeley Electrical Engineering & Computer Sciences | Berkeley, CA

# Computer Science Academic Intern/Tutor

January 2019 - December 2019

- Assist lab sections in the Foundations of Data Science (CS C8) and Computational Structures (CS 88, CS 61A) courses.
- Tutor students through projects, focusing on statistical inference, data analysis, and code structure using Python/SQL.
- Oversee office hours and tutoring sections to further assist students who requested additional help on conceptual topics.