Kunal Dutta

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EDUCATION

University of California, Berkeley   December 2021
Bachelor's of Arts, Computer Science (Minor in Data Science) | **GPA: 3.59**
Relevant Coursework: Data Structures; Efficient Algorithms and Intractable Problems; Discrete Mathematics and Probability Theory; Computer Architecture; Computational Structures in Data Science; Linux System Administration

SKILLS

Software Development: Python (NumPy, Pandas, BS4), Java (JUnit, Android Studio), C, Git version control
Web Development: HTML, CSS, JavaScript, Django
Data Analytics: Python (Jupyter Notebook, Pandas, NumPy), R, Microsoft Excel
Computer Architecture: C, RISC-V, Linux/Unix OS, Shell scripting

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

Gitlet
School Project   December 2019
https://github.com/kdutta9/coursework/tree/master/cs61b/gitlet *(private)*
- Implemented a version control system capable of tracking and committing file additions, modifications, and deletions.
- Created features to display status of repository, create development branches, and revert to previous saved iterations of repository.
- Utilized data structures, traversal algorithms, and hashing to efficiently search for previous commits and track data economically.
- Tools Used: Java (Files, JUnit Testing, HashMaps)

Online 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 product listings online.
- Created a training and testing set by web scraping product details for potential scams, 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 Android application which sends GET requests to a web extension that closes incognito tabs when the user's door opens.
- Used magnetic field sensing capabilities in Android phones to detect opening and closing of doors, triggering the request.
- Tools Used: Java (Android Studio, GET Requests)

EXPERIENCE

UC Berkeley Electrical Engineering & Computer Sciences|Berkeley, CA
Computer Science Tutor   January 2019 - December 2019
- Provide assistance to students in laboratory sections for the introductory computer science and data science courses.
- Tutor students on long-term projects, focusing on data analysis and foundational programming methods using Python, SQL, and Lisp.
- Oversee office hours and tutoring sections to further assist students who request additional help on programming and statistics.

Mathnasium - The Math Learning Center|San Jose, CA
Mathematics Instructor   June 2017 - May 2018
- Taught students from grades K-12 mathematics at their respective levels with goals to improve mathematical maturity.
- Organized lesson plans for students over an hour-long teaching interval to combine direct teaching with independent learning.
- Tracked progress of students and determined milestones for each of my students, determining appropriate pathways to success.