Kunal Dutta

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EDUCATION

University of California, Berkeley May 2022
***Bachelor's of Arts, Computer Science with Minor in Mathematics* | GPA: 3.634**
Relevant Coursework: Efficient Algorithms; Data Structures; Discrete Mathematics; Electrical Engineering; Linux System Administration; Operating Systems (in progress); Probability and Random Processes (in progress); Artificial Intelligence (in progress)

PROFESSIONAL EXPERIENCE

YouRL | Long Beach, CA
Software Engineer January 2020 - Present
- Designed a web interface for social media users, creating custom pages for each user on the platform.
- Deployed home page for corporate website, with login system.
- Tools Used: Python, Django, HTML, CSS, JavaScript, Firebase

iD Tech Camps | Campbell, CA
Computer Science Instructor June 2020 - Present
- Teach concepts and mentor projects for students learning Python, Java, machine learning, and cyber security.
- Developed company-wide curriculum/lesson plans for object-oriented programming and machine learning coursework.

PROJECTS

Smart Surveillance System | Programming and Engineering Project
https://github.com/kdutta9/Smart-Surveillance
- Implemented motion detection system that alerts a user with Twilio API and sends the footage via cloud storage.
- Built hardware systems with Raspberry Pi and cameras, which deployed to a 18-house neighborhood.
- Tools Used: Raspberry Pi, Python, OpenCV, Twilio API, Amazon Web Services

Basketball Shot Tracker Application | Programming Project
https://github.com/kdutta9/ShotTracker
- Created an Android application that can detect basketballs and hoops, and count shots missed and made.
- Trained custom TensorFlow Lite model using YOLOv4 detection and cloud computing.
- Tools Used: Python, Java, TensorFlow Object Detection API, YOLOv4, Google Cloud Platform

Daily Basketball Fantasy Projections | Club Project
https://sportsanalytics.berkeley.edu/fantasyprojections
- Designed and built web pages that display projection data for fantasy basketball, updating daily via cron job.
- Implemented filters to search via player name, position, and team.
- Tools Used: Python, Pandas, HTML, CSS, JavaScript, Shell

Gitlet | School Project
https://github.com/kdutta9/coursework/tree/master/cs61b/gitlet *(private)*
- Built version control system that can track and commit file changes, revert to previous versions, and create branches.
- Implemented methods to efficiently search for data and track commits, using search algorithms and data structures.
- Tools Used: Java

SKILLS

Languages: Python, Java, C, HTML, CSS, RISC-V Assembly
Frameworks: OpenCV, Django, Flask, TensorFlow, NumPy, JUnit testing
Technologies: Git version control, Raspberry Pi, Android Studio, Amazon Web Services, Google Cloud Platform, Linux/Unix

LEADERSHIP

Sports Analytics Group at Berkeley: Executive Treasurer, Sports Analytics Projects team member
UAVs@Berkeley: Computer Vision team member
Cal Mic Men: Leader of student section, Master of Ceremonies for sporting events for attendance up to 65,000 people