Akilesh **Bapu**

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University of California, **Berkeley**
Electrical Eng. Computer Science

Freshman, Expected Graduation: 2018
Leadership Scholar *GPA: 3.7*

Courses by Summer 2015:
- CS61A**:** Structure, Interpretation of Computer Programs
- CS61B: Data Structures, Advanced Programming
- CS70: Discrete Math and Probability
- EE16A, EE16B: Designing Devices, Info Systems
- EE: Digital Logic Design, Computer Organization

Technical Skills

Proficient
- Swift/ Obj. C
- Python

Frequently Used
- Java
- JS, SQL, Lisp

Other
- Algorithms, Design
- Hardware (Arduino)

Experience

Berkeley Mobile iOS 9/15 - Present
iOS Developer - Objective C
- Part of team that built and improves Berkeley's campus application with over ***5,000 users***
- **Most Recent Impact:** Added customizable start, stop, and time destination mapping for Berkeley Public Transit, made routes calculate instantly and dynamically to make routing process faster.

CS61A Lab Teaching Assistant: Structure, Interpretation of Computer Programs 1/16 - Present

Berkeley HyperLoop Team 9/15 - Present
Signals and Controls Engineer
- Goal:Create safety-centered system computer for Berkeley's SpaceX's supersonic vacuum travel pod, Program Raspberry Pi to interface with Keyence sensors to keep pod balanced and cancel out vibrations
- **My Impact So Far:** CAD-ed (Computer Aided Design) seats and interior components to exemplify a practical safety first approach that qualified team Top 22 Internationally for competition test track testing in June 2016.

UNT Dept. Materials Science Research 1/14 - 6/15
Student Research Assistant
- Developed model that can make any metal 30% lighter without losing strength to prevent bone implants from stress-shielding. Used LAMMPS, UNIX scripts: nano-porous copper with niobium.
- **My Impact:** Led project, validated this model through 1.5 years of computational simulations, synthesized a real-life Zinc-Oxide model, presented discoveries as an **Intel ISEF Finalist**

Projects

Delphi **Present**
Intellectual Property Challenge Lab
- Developed algorithm for tech corporations to use that predicts patent troll litigation, using SVM and Alchemy API's Semantic NLP, Python.

Casa **Present**
- Fully built and tested Swift App that lets users rent out different portions of their house
- Challenges included algorithms to maintain security with renter's availability, faster search, and messaging

SpeedUp **10**/15
CalHacks 2.0
- Haptic Feedback to shoes if you're running late to class using Arduino w/Bluetooth LE, Swift iOS App, Here Maps, Apple MapKit, real-time distance + pace calculation

Alleviate **3**/15
HackDFW Most Technologically Innovative Award
- JS WebApp uses Leap Motion IR Sensor, notifies you of incorrect hand position, finger extension to prevent tendonitis based on our mathematical model.