Akilesh Bapu

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

Expected Graduation: Spring 2018
Leadership Scholar   GPA: 3.6

Technical Courses

- **CS189: Intro to Machine Learning**
- **EE126: Advanced Probability and Random Processes**
- **EE120: Signals and Systems**
- **CS188: Artificial Intelligence**
- **CS294: Lean Launchpad**
- **IEOR 185: Machine Learning and Intellectual Property**
- CS61A: Programming Structure
- CS61B: Data Structures
- CS61C: Computer Architecture
- CS70: Discrete Math and Probability
- EE16A, EE16B: Designing Devices

Proficient	Frequently Used
- Swift/Obj. C	- SQL, Lisp, C
- Python	- Web App Dev
- Java	- Mips Assembly

Projects
Sixteen

- Voice Controlled Drone Car
- PCA Classification, Designed and Implemented Low-Pass Filter for Voice
- Used Controls and a transistor circuit to build turning and acceleration.

Gotham

- Voice Controlled Safety Real-TIme Crime Map (Using Alexa, IBM Watson, MapBox, AWS, AWS IOT Shadow)
- MapReduce Data aggregation
- Underwriter Labs Best Use of Data Prize

Other projects can be found at:

- https://www.hackster.io/akbapu
- https://devpost.com/akbapu
- https://devpost.com/akbapu14

Internships
Apple Inc   **Summer 2016**
Software Engineering Intern

- Implemented Xcode Interface Builder Feature that uses heuristics to reduce internationalization related issues by 50%, saving engineers hundreds of thousands of hours.
- 1 of 7 total interns selected to present project to Craig Federighi, VP of Software Engineering at Apple.

AI Experience
Delphi Vision   **Spring 2016 - Present**
Co-Founder

- Find similar patents using artificial intelligence
- Built/refined dimensionality reduction approach using nonnegative matrix factorization, run on ~350k patents on AWS EC2 Instance
- **Berkeley SkyDeck & House Fund** Backed

Classification   **Spring 2017**

- Wrote SVD, LDA, QDA Implementations to classify handwritten numbers (MNIST) with > 90% Accuracy, frequently in top 10 under Kaggle Leaderboards optimized hyperparameter and features (Using Edge-Detection) (as part of CS189 Course).

NBA MVP Pagerank   **Spring 2017**

- Used the pagerank algorithm and used a combination of head-to-head weights + overall weights to predict the top MVP candidates for 2017 based on their stats

Pacman AI   **Fall 2016**

- Tried Reinforcement Learning, Inference based Decision Making to make the best AI for Pacman (as part of CS188 Course).

iOS Experience
CS198: Intro to iOS   **Spring 2017**
Instructor

- Teach 100 students the fundamentals of iOS
- Build 12 week curriculum including labs, projects, homeworks, and lectures
- Manage teaching team of 10 Teaching Assistants

Berkeley Mobile   **Fall 2015 - Present**
iOS Lead

- Lead team of 4 engineers that built and improve Berkeley's campus application (including live buses, dining menus and more) with over 10,000 users

Research Experience
UNT MSE Dept   **Spring 2014 - Summer 2015**

- Developed model for 30% lighter metals that prevent bone implants from stress-shielding by introducing niobium nano rods to porous copper
- Research Assistant under Dr. Srinivasan Srivilliputhur
- **Intel ISEF Finalist, 2nd Place State, Grand Prize Regionals**