# Humza Iqbal

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humzaiqbal.github.io

### **Education**

## University of California, Berkeley

**Berkeley** 

BA. Computer Science

2014-2017

Courses Taken: Data Structures, Discrete Math and Probability, Probability and Random Processes, Algorithms, Machine Learning, Graduate Algorithms, Operating Systems

## **Experience**

Elastica San Jose, CA

Machine Learning Intern,

May 2015 - Aug 2015

- Built classification tools to perform multi-class classification among five classes: Business, Legal, Computing, Health, Finance, with over 90% accuracy on a test set as defined by custom metrics using state of the art machine learning techniques
- Implemented GUI to track classification performance, and allow users to manually change results

**Bajcsy Group** 

Berkeley, CA

Undergraduate Researcher,

Sep 2015 - Jan 2016

• Analyzed human motion data using machine learning in order to figure out when people are exercising. Implemented classifiers to detect different kinds of exercises from the data

CalSol Berkeley, CA

Strategy Lead and Electrical Member,

Feb 2015 - Aug 2015

- Analyzed data from car as well as track conditions in conjunction with machine learning to find the optimal route to race the car
- Wrote microcontroller code in C++ ensuring that the car runs safely and efficiently

### Machine Learning at Berkeley

Berkeley, CA

Undergraduate Researcher,

Feb 2016 - Present

 Researching asynchronous neural networks for up and coming Machine Learning Club at Berkeley and working on Machine Learning project with Grand Rounds

Lab Assistant Berkeley, CA

Staff member, Jan 2015 - Dec 2015

 Helped teach first year students programming concepts such as recursion and object oriented programming and helped debug projects in office hours

## **Projects**

- Wordnet: Used Java to make a program which interacts with the Google Ngram Dataset to analyze the history of words over a given time period, going as far back as the 1400s.
- Maximum Acyclic Subgraph Approximator: Used an ensemble of three different algorithms to approximate the Maximum Acyclic Subgraph problem
- Random Forrest: Built a Random Forest learning machine capable of getting approximately an 85% accuracy rate on the census data set
- Gitlet: Used Java to build a miniature version of Git which allowed the user to commit, checkout, branch, rebase, and merge as regular Git would.
- Neural Net: Built a 2 layer Neural Network and trained it on the MNIST data set to achieve a 5% error on Kaggle data. Also made wrapper to work with the Tensor flow library

## **Skills**

**Programming Languages**: Python, Django, Java, C, C++, Matlab, HTML, SQL, MIPS, TeX **Workflow tools**: Git, Bootstrap, UNIX, Eclipse, LPCXpresso, MapReduce, SciPy