

# Humza Iqbal

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📁 humzaiqbal.github.io

## Education

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**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

## Experience

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**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 - Present*

- 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

## Projects

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- 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 (an NP hard 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.

## Skills

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**Programming Languages:** Python, Django, Java, C, C++, Matlab, HTML, SQL, MIPS, TeX

**Workflow tools:** Git, Bootstrap, UNIX, Eclipse, LPCXpresso, MapReduce, SciPy