Humza Iqbal

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Education

University of California, Berkeley **Berkeley**
BA. Computer Science *2014-2018*
Courses Taken: Data Structures, Discrete Math and Probability, Probability and Random Processes, Algorithms, Machine Learning, Operating Systems

Experience

HealthPals **Menlo Park, CA**
Data Science / Software Engineering Intern, *May 2016 - Aug 2016*

- Implemented analytics tool for patients to view 10 year risk of heart attack
- Used javascript / js to create a tool allowing patients to visualize different risk factors leading to heart attack
- Using sensitivity analysis to understand how different risk factors interact with each other to contribute to heart disease

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

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 - May 2016*

- Working on Machine Learning project with Grand Rounds in order to find anomalies in medicare data as well as general analysis

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, Java, C, Javascript, HTML, SQL, MIPS, TeX

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