Jayson Jeon

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Education **B.A. Computer Science — UC Berkeley, May 2017**

Relevant Coursework — Computer Programs, Data Structures, Machine Structures, Algorithms, Databases, Security*, Artificial Intelligence, Machine Learning*, Linear Algebra/Diff Eq., Discrete Maths/Probability, Random Processes, Circuits, Web Design**, Big Data with Apache Spark***

Experience **CS 61B (Data Structures) Lab Assistant, UC Berkeley – Jan 2015 - Dec 2015**

- Assisted students on lab assignments and projects under the teaching assistant
- Created a spreadsheet to manage all lab assistants for the course staff

Projects **Digit Classifier with SVM**

- Created a classifier that takes in pixelated digits (0 to 9) with NumPy/SciPy
- Used support vector machine to classify and used cross-validation methods to find a value for the hyperparameter c
- Trained on thousands of samples using training/validation set and achieved an accuracy rate of 90% on test set (submitted on Kaggle)

Popularity Ranking on StackOverflow

- Implemented the PageRank algorithm with Python to find which topics on StackOverflow are the most popular (turned out to be Java and C)
- Used BeautifulSoup4 to parse through the web pages and find valid links and tags

Image Depth Perception and Performance Optimization

- Created a C program that can approximate depth within a stereo image
- Optimized the program to increase the operation rate from 1.7 Gflops to 24 Gflops
- Used loop reordering, loop unrolling, Intel SSE Intrinsics, and OpenMP techniques

Apache Spark MapReduce and Cloud Computing

- Used Apache Spark to find a solution to a game (sliding blocks on a board)
- Made flatmap, map, and reduce methods in Python that find the results to all possible moves then choose the winning moves
- Ran the code on a bigger scale on Amazon AWS EC2 servers

Dots Game and AI

- Created a game in Java similar to Bejeweled (connect 3 of the same dots)
- Made mechanisms that make dots fall as if they are affected by gravity and create random dots and drop them into the board whenever there are empty spaces
- Implemented a special rule in which destroying dots in a “closed shape” (a loop of dots) gives bonus points and an AI that finds the closed shape that would result in the most points

Skills **Languages** — Python, Java, C, MIPS, SQL, HTML5/CSS3, JavaScript (JQuery)

Parallel Computing — Apache Spark, Intel SSE Intrinsics, OpenMP

Others — Git, Unix, Logisim, Multisim, Google Docs, NumPy/SciPy

*Currently enrolled **deCal course run by students ***MOOC on edX offered by UC Berkeley