Patrick Yu

13381 San Remo
Tustin, CA 92782
(714) 651-5438

EDUCATION

Bachelor of Arts, Applied Mathematics. May 2015
University of California, Berkeley
Concentration: Computer Science

EXPERIENCE

Treasurer, Head Coordinator   2013 - 2015
Project S.M.I.L.E.
- Board member for Project S.M.I.L.E., holding a variety of positions.
- Worked closely with the ASUC, LEAD Center, and Public Service Center, organizing events for 80+ children and mentors.
- Taught a seminar class where I brought in speakers to talk about different topics in education.
- Provided leadership and training to mentors and board members.

Tutor, Mathematics   2012 - 2014
Irvine, Ca
- Tutored students in Mathematics.

PROJECTS

Image Recognition
- Given jpg images of handwritten numbers, designed an algorithm to analyze each pixel and decipher which number was written.
- Implemented in Python.

Spam Filter
- Created an algorithm to classify emails as spam or not spam for an email service.
- Implemented in Python

Image Compression
- Designed an algorithm to decrease the file size of any image based on a percentage inputed by the user.
- Implemented in Matlab.

PageRank
- Designed ranking system using a version of the PageRank algorithm that ranked actors using IMDb ratings.
- Used the Beautiful Soup Python package to crawl through the HTML source code of imdb, recording the ratings of movies which had our selected actors listed.
- Each actors total score was averaged taking into account each movie's popularity and the number of reviews to ensure accuracy.

TECHNICAL SKILLS

Languages & Software: Python, Java, Matlab/Octave, Scheme, Latex, R, Ruby, Git, SQL, Spark, Excel VBA, C++
Operating Systems: Windows, Mac, Unix

COURSE WORK

- Multivariable Calculus
- Linear Algebra
- Differential Equations
- Discrete Mathematics
- Numerical Analysis
- Abstract Algebra
- Cryptography
- Structure of Computer Programs
- Data Structures
- Efficient Algorithms
- Probability
- Stochastic Processes
- Machine Learning
- Computing with Data