

## Patrick Yu

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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.

*Seminar Organizer, Education 97/197* 2013 - 2015  
University of California, Berkeley

- Organized a seminar which brought in speakers for different topics in education.

**PROJECTS** Image Recognition

- Designed and implemented k-nearest neighbor machine learning algorithms to identify handwritten numbers.

Spam Filter

- Trained models for varying amounts of decision trees in a random forest algorithm to classify emails as spam or not spam.

Image Compression

- Used singular value decomposition to compress image file size based on percentage.

PageRank

- Applied Google's PageRank algorithm to rank actors based on IMDb ratings through the Beautiful Soup Python package.

**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	• Data Structures
• Linear and Abstract Algebra	• Efficient Algorithms
• Differential Equations	• Probability
• Discrete Mathematics	• Stochastic Processes
• Real and Numerical Analysis	• Machine Learning
• Cryptography	• Computing with Data