Paul Kang

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Education

Senior, University of California, Berkeley
Currently completing B.A. Computer Science

Graduation: Fall 2014

Extra Curriculars

Officer, Computer Science Undergraduate Association.

- Direct coordinator for Berkeley's representatives to the Cloud Computing summit at the Computer History Museum, San Jose.

Projects Completed

Projects can be found on github.com/sollipse

- **Graph-Based Mapreduce**: A java-based framework that completes a parallelizable task by forking different tasks (mapper), and joining them (reduce). This implementation converts nodes in a graph to arrays of writable objects, then returns a histogram of their average distances.

- **Engima Simulator**: Java package of Rotors, Cylinders, and master class Machine. Rotors and Cylinders are instantiated with historically accurate scrambled alphabet keys. Rotors are then run in randomized value by Machine class to simulate a polyalphabetic substitution cipher.

- **PacMan AI Search Tree**: A python package with a framework for Pacman to be played. The package uses different approaches to implement an efficient search tree for Pacman's movement. Explores concepts such as feature representation and weighting in order to establish the value of different action, hashing search trees for efficency, and Q-Learning in order to ensure that incremental failures improve the tree's representation of the search space.

- **Model Operating System**: The NachOS model operating system is a test environment that deals with how to allocate resources so that a machine can run many different programs and give the illusion of concurrency. The model OS is separated into four primary PROJECTS that deal with networking, thread allocation, memory allocation, and kernel management.

- **Ruby-On-Rails Server**: A personal server running Rails and a trivial demonstration application.

Courses Completed

- CS61 Series: Data Structures, OOP, Machine Structures.

- CS 161: Security and Crypographic Algorithms

- CS 162: Operating Systems

- CS 170: Advanced Algorithms

- CS 188: Artifcial Intelligence and Machine Learning

Skills

Languages (by recent use)	Python, Ruby, ERB, C, C++, Scheme, Java, HTML, CSS
Version Control Systems	git
Virtualization Platforms	VMWare, VirtualBox
Web Development Frameworks	Ruby on Rails, PosGRES, Spork
Operating Systems	Windows, UNIX/Linux, Android