VAISHAAL SHANKAR

EDUCATION

University of California, Berkeley | Class of 2015
Electrical Engineering & Computer Science | GPA 3.68
Honors & Deans List

WORK EXPERIENCE

University of California, Berkeley | Fall 2014 - Present
CS162 Head Teaching Assistant
Reorganized CS162 course material to revolve around a x86 based kernel (Pintos) and low level systems programming. Wrote autograder, designed projects & homeworks and led discussion sections for Operating Systems course.

Secure Computing Research, UC Berkeley | Fall 2014 - Present
Research Assistant
Worked on dimensionality reduction using iterative hard thresholding to run more expensive non linear classifiers for malware detection pipeline. Currently working on reputation analysis for various antivirus vendors, for better ground truth labels.

Video & Image Processing Lab, UC Berkeley | Spring 2014 - Present
Research Assistant
Designed and implemented supervised learning techniques to improve ground level image localization with aid from overhead satellite data.

University of California, Berkeley | Fall 2013 - Spring 2014
CS162/CS61A Teaching Assistant
Led discussion section and labs, held office hours and review sessions for students in the Intro to Computer Science course and the Operating Systems course.

Facebook | Summer 2013
Software Engineering Intern
Wrote a run time type profiler for Facebook's HipHop PHP Just in Time Compiler. Added instructions to compiler to log function input and output types for functions to identify and tag "statically typed" functions.

PROJECTS

Eth194+
An ethernet driver for an NE2000 based ethernet card with port mapped IO, dma, and intelligent flow control. Written for Linux Kernel

Lpfs
An encrypted log structured, copy on write file system with snapshots, journaling and segment cleaning for the Linux Kernel

Neural Network
Implemented a neural network classifier completely from scratch.

Pseudopython
A compiler for "pseudopython" a statically typed language with very close resemblance to python but has type inference and uses LLVM for code generation

Inventory
An intelligent backpack that keeps track of what items are inside it with the aid of an android application. 1st place Pennapps 2013

Pythonscript
A compiler that converts python code into javascript to run in browser. Has support for funciton definitions, custom classes and operators. 1st place Battle of Bay 2012

PUBLICATIONS

V. Shankar, J. Zhang, J. Chen, C. Dinh, M. Clements and A. Zakhor. Approximate Subgraph Isomorphism for Image Localization. Computer Vision and Pattern Recognition (in review), 2015.

TECHINCAL SKILLS

Programming Languages	C, C++, Python, Scala, Javascript, Java, LaTeX
Tools	Bison, Yak, Gdb, Neo4j, Mongodb, Hadoop, Qgis, Gdal, Adt
Coursework	Advanced Operating Systems, Compilers, Machine Learning,
	Digital Image Processing, Statistical Learning Theory , Networking
	Linear Algebra, Real Analysis, Quantum Mechanics

ACTIVITIES & INTERESTS

Hackers at Berkeley - Organized and led technical workshops/hackathons
Eta Kappa Nu - EECS Honor Society member

GITHUB.COM/VAISHAAL

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