

Kai-Sern Lim

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

BS IN ELECTRICAL ENGINEERING & COMPUTER SCIENCE

Expected May 2017 | Berkeley, CA

COURSEWORK

CURRENT

CS161 (Computer Security) • **CS189** (Machine Learning) • **CS280** (Computer Vision) • **CS198** (Ruby on Rails DeCal)

COMPLETED

CS 61A (Intro to Computer Science) • **CS 61B** (Data Structures & Algorithms) • **CS 61C** (Great Ideas in Computer Architecture) • **CS 70** (Discrete Mathematics) • **CS 170** (Efficient Algorithms & Intractable Problems) • **CS 194-26** (Computational Photography & Image Processing) • **Physics 7A** (Mechanics & Wave Motion) • **Physics 7B** (Heat, Electricity & Magnetism) • **Math 53** (Multivariable Calculus) • **Math 54** (Linear Algebra & Differential Equations) • **EE 20 + EE 120** (Signals & Systems) • **EE 40** (Intro to Microelectronic Circuits) • **EE 123** (Digital Signal Processing) • **EE 126** (Probability + Random Processes) • **EECS 149** (Embedded Systems)

PROJECTS

IMAGE PACKET TRANSMISSION

Python program that encodes an image into AX25 packets which are transmitted by a radio to other radios using packet radio

PANORAMA ALIGN

Python program that aligns images for a panorama using Harris Corner Detection, MOPS, and RANSAC

NETWORK

Implements an A.I. that chooses an optimal move utilizing Alpha-Beta Pruning for the game Network in Java

EULERIAN VIDEO MAGNIFICATION

Python program that implements the MIT paper processing a video by amplifying selected band-pass filtered frequency motions

MAPREDUCE 15 PUZZLE

Finds all possible board states of a sliding puzzle and strongly solves them using Apache Spark (MapReduce)

EXPERIENCE

ADAPTIVE INSIGHTS | SOFTWARE ENGINEERING INTERN

June 2015 - Aug 2015 | Palo Alto, CA

- Worked on the **Build & Release Team**, and set up **Continuous Integration** system with **Jenkins**.
- Wrote **Python scripts** for automation of information retrieval from active machines.
- Wrote custom detector plugin for **FindBugs** - the Java static analysis tool - to statically lint code for errors.

CS61B + CS61C | LAB ASSISTANT

August 2014 - May 2015 | Berkeley, CA

- Assisting and tutoring students with their weekly lab and homework. Also consists of debugging the students' projects.

SKILLS

PROGRAMMING

Over 5000 lines: Java • Python

Familiar: ReactJS • Javascript • C • Ruby • Apache Spark • MIPS • \LaTeX

NON-PROGRAMMING

Skilled in: HTML • Adobe Photoshop • Adobe Illustrator • Sketch • Jenkins • Docker

HAM Radio Licensed (Technician)