# LOIS HO

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## OBJECTIVE

Interested in an internship opportunity in front-end and/or back-end development for summer 2016.

## EDUCATION

**University of California, Berkeley** Expected May 2017
**Bachelor of Arts in Computer Science**

- CS186 Database Systems
- CS169 Software Engineering
- CS170 Efficient Algorithms and Intractable Problems
- CS188 Artificial Intelligence
- CS61B Data Structures and Advance Programming
- CS61C Computer Architecture (Machine Structures)

## SKILLS

Programming Languages:

- Proficient in: Python, Java
- Familiar with: HTML, CSS, JavaScript, SQL, Ruby, Ruby on Rails

Bilingual—fluent in English and Chinese

## PROFESSIONAL EXPERIENCE

**SOFTWARE ENGINEERING INTERN | SmileyGo** March 2016 – Present

- Currently working in a team of 6 to build additional features—reviews and ratings page—with Ruby on Rails
- Incorporated TDD and BDD testing including Rspec and Cucumber tests—runs automated acceptance tests
- Two week iterations following Scrum, an Agile methodology

**IT HELPDESK SYSTEM ADMINISTRATOR | UC Berkeley IRIS/EECS Department** August 2014 – Present

- Troubleshot and diagnosed computer problems and facilitated DHCP connectivity
- Registered and updated systems in IRIS/EECS domain; performed inventory on software
- Assisted clients with excellent operational understanding of the technical support structure within EECS

## PROJECTS

**PERSONAL WEBSITE | http://loisbess.com**

- Built this website from scratch using HTML, CSS, and JavaScript/jQuery

**TRANSACTIONS | Python**

- Implemented a concurrency control manager which coordinates simultaneous transactions while preserving data integrity
- Specifics include protocols for Strict Two-Phase Locking and Deadlock Detection

**PERFORMANCE OPTIMIZATION AND MAPREDUCE | Python**

- Performed optimization of the evaluation of a convoluted neural network that classifies 32 x 32 images into 10 categories and find those that contain cats; speed up by a factor of 12x. Optimized this app through loop unrolling, vectorization, parallelization, SIMD instructions, and OpenMP to parallelize computations.
- Used MapReduce programming model to optimize the training of classifiers in the convoluted neural networks.

**GRAPH PACKAGE | Java**

- Developed a graph package to provide methods for manipulating graphs that used traversals, such as breadth-first search, depth-first search, A* search, and Dijkstra's algorithm
- Allowed Trip-finder client to use the package to find the shortest distance with directions from a start and end point