

# JADE HUA

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## EDUCATION

University of California, Berkeley, **B.S Electrical Engineering and Computer Science**

Awards: Regents' and Chancellor's Scholarship, **Expected Graduation Date**: May 2016

### Relevant Coursework

Structure and Interpretation of Computer Programs

Great Ideas in Computer Architecture

Discrete Mathematics and Probability

Introduction to the Internet: Architecture and Protocols\*

Data Structures and Algorithmic Analysis

Introduction to Artificial Intelligence

Efficient Algorithms and Intractable Problems\*

Computer Security\*

## PROFESSIONAL EXPERIENCE

**IBM**, Software Developer Intern

*Columbus, OH* **May-Aug '14**

- Developed a modernized Connect:Direct web console through IBM'S JAVA 10x User Interface framework
- Leveraged Connect:Direct REST APIs to link back-end server queries to user interface
- Implemented iterative testing through JUnit tests and written test scripts for individual modules

**UC Berkeley Graduate Assembly**, Administrative Assistant-IT

*Berkeley, CA* **June '13-May '14**

- Lead developer and administrator of UC Berkeley's Graduate Assembly's website
- In charge of all Information Technology in Graduate Assembly's business office
- Worked on various web projects: *The Berkeley Graduate* online blog, ASUC's *Perspectives* Showcase website

**UC Berkeley Robotic Learning Lab**, Undergraduate Student Researcher

*Berkeley, CA* **June '12-Aug '12**

- Student researcher under EECS Professor Pieter Abbeel
- Built student web application to model Bayesian Networks used in CS188 (Introduction to Artificial Intelligence)
- Gave Robotic Learning Lab tours demonstrating PR2 robots to visiting student groups

## PROGRAMMING PROJECTS

**Reinforcement Learning** | Python

**April '14**

- Implemented machine learning algorithms: Value Iteration and Q-Learning to teach a simulated robot controller to crawl

**Digit Recognition** | C/MIPS

**March-April '14**

- Implemented digit recognition by comparing images to 8-bit templates
- Algorithm takes into consideration various rotations and translations of the images at hand
- Parallelized code with Intel's SSE, parallel threads, and loop unrolling

**Hadoop Map Reduce** | JAVA

**Feb-March '14**

- Implemented multi-threaded version of the minimax algorithm with Hadoop on Amazon EC2 servers
- Designed algorithm to solve for the most efficient solution to a game of Connect Four

**Kruskal's Algorithm** | JAVA

**March '13**

- Coded encapsulated abstract data type: weighted, undirected graph with vertices of any object type
- Implemented Kruskal's algorithm for finding minimum spanning tree of a graph

**Twitter Trends** | Python

**Sep-Oct'12**

- Developed algorithm that displays geographic visualization of Twitter data
- Algorithm grouped tweets and analyzed sentiments over 24 hour periods

**Modeling Bayesian Networks Application** | JavaScript, JointJS

**July-Aug '12**

- Developed application that allows for user creation of nodes and edges to represent various Bayesian Networks
- Coded computations of variable elimination, inference by enumeration, and d-separation

**SKILLS**: Java (4+ yrs), Python (2+ yrs), C (1 yr), Objective-C (1 yr), HTML5, CSS, JavaScript, jQuery (2+ yrs)  
Git, Eclipse, Agile Development, Adobe Photoshop