

# Giulio Zhou

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## EDUCATION

### UC BERKELEY

#### BA IN COMPUTER SCIENCE

Expected Dec 2016 | Berkeley, CA

Cum. GPA: 3.89 / 4.0

Major GPA: 3.97 / 4.0

## COURSEWORK

Artificial Intelligence

Machine Learning

Computer Networking

Data Structures

Algorithms

Machine Architecture

Discrete Math

Probability Theory

Linear Algebra

Stochastic Processes

Operating Systems

Computer Vision

Database Systems

## ABOUT ME

I am a fourth year Computer Science student with a passion for artificial intelligence and machine learning. In particular, I'm interested in building systems for unsupervised learning at scale and exploring the intersection between deep learning and traditional methods in vision and inference.

## LINKS

Github: [giulio-zhou](#)

LinkedIn: [giuliozhou](#)

## SKILLS

### PROGRAMMING

Java • Python • Matlab • C/C++  
HTML/CSS/JS • Caffe • Spark

### WORKFLOW

Git • Vim • Unix • EC2  
Trac • Gerrit • Eclipse

## WORK EXPERIENCE

### CENTER FOR INTELLIGENT SYSTEMS

Feb 2015 - Present | Berkeley, CA

- Worked under Stuart Russell on sampling algorithms for Bayesian LOGic, an open-universe probabilistic modeling language
- Applied an online EM algorithm to solve a Gaussian mixture model for image segmentation in video sequences

### AMPLAB

May 2016 - Present | Berkeley, CA

- Worked under Joseph Gonzalez on systems for online training and deployment of machine learning models

### GOOGLE | SOFTWARE ENGINEERING INTERN

May 2015 - August 2015 | Mountain View, CA

- Worked on Display Ad Automation Team to improve the quality of Native Ads
- Designed and built a backend pipeline for high-quality automated text-to-image matching for non-English display ads

### COLLEGE OF CHEMISTRY, ALIVISATOS GROUP

Jan 2014 - Dec 2014 | Berkeley, CA

- Utilized gradient descent optimization and generalized moments method to simulate the optical and mechanical properties of tetrapod nanocrystals

## TEACHING EXPERIENCE

### CS 61BL | UNDERGRADUATE STUDENT INSTRUCTOR

June 2016 - present | Berkeley, CA

- Led daily lab sections, created course material for the summer offering of the data structures and algorithms class

### CS 61B | UNDERGRADUATE STUDENT INSTRUCTOR

Jan 2016 - May 2016 | Berkeley, CA

- Led weekly discussions, created course material for the 1200-student data structures and algorithms class

### CS 170 | COURSE READER

Aug 2015 - Dec 2015 | Berkeley, CA

- Graded exams and attended homework parties for the algorithms course

### CS 61B | UNDERGRADUATE STUDENT INSTRUCTOR

Jan 2015 - May 2015 | Berkeley, CA

- Held office hours and led a weekly supplementary section

## PROJECTS

### Image Artifact Removal Using Deep Learning (PyCaffe)

- Trained a deep convolutional neural network to remove JPEG artifacts

### Computational Photography Projects (Python)

- Face/image morphing across pre-defined and automatically detected meshes
- Content-aware image resizing and object removal using seam carving
- Multiresolution blending using Gaussian and Laplacian stack decomposition

### Tour Into Picture (Android, OpenGL)

- Converts a 2D picture into a 3D tour using homography transformations