

# Carlos Flores

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## Education

**B.A. in Computer Science**  
**at University of California, Berkeley**

graduation: Spring 2017



## Teaching Experience

### **Undergraduate Student Instructor for CS61B** (January 2016 - Present)

I teach data structures at UC Berkeley. The class is taught in Java, and is concerned with tradeoffs between time and memory for structuring data, as well as engineering moderately large programs.

### **Level Playing Field Institute** (September 2015 - Present)

I work as a teaching assistant for LPFI. I help teach BJCx (Beauty and Joy of Computing) and AP CS to high school students. LPFI focuses on empowering under-represented minorities and giving them tools to grow and pursue their interest in computer science.

### **Undergraduate Student Instructor for CS10** (December 2014 - Present)

I teach Beauty and Joy of Computing at UC Berkeley. The class focuses on "big ideas" of computing, such as abstraction, recursion, concurrency, and the limits of computing. The course is designed for non-majors and we also discuss impacts of computing in society.

### **Private Tutoring for the Urban School of San Francisco**

I tutored two students last semester. They were both high school students in San Francisco taking a course with similar curriculum to CS10. It was a good experience I learned how to tackle specific flaws in students on an individual level.

## Projects

### **Linear Support Vector Machine for MNIST Dataset (Python)**

I wrote a program that uses an svm to classify handwritten digits. The linear classifier achieved about 90% accuracy. I also added a small feature that calculates the Histogram of Oriented Gradients increasing accuracy to 97%.

### **Neural Network Optimization (C)**

Worked on optimizing an existing neural network by using cache blocking techniques, and extensions such as SSE Intrinsic and Intel AVX.

### **NBA Finals Sales Visualization (Jquery, CartoDB)**

During my internship I worked on creating visualizations on a map of the recorded sales by the warriors and cavaliers during the 2015 NBA Finals.

## Computing Skills

Java, Python, Javascript, HTML, CSS, InDesign, C, PostgreSQL, MIPS, Spark

## Classes

**EE375: Teaching Techniques for EE/CS**

**CS188: Artificial Intelligence**

**CS189: Machine Learning**

**CS170: Algorithms and Intractable Problems**