Carlos Flores

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

graduation date: May 2017

Info

carlos.flrs@berkeley.edu | github: carlosflrs | linkedin.com/in/carlosflrs

Projects

Neural Network for MNIST dataset (Python)

I wrote a 1-hidden layer neural network to predict a handwritten digits (MNIST) database. I managed to get 97% on a 40,000 image test set.

Decision Tree and Random Forests (Python)

I wrote a decision tree and random forests module to predict if someone has an annual income greater than $50k. I used data from a census to do the training, the data set included numerical and categorical data.

NBA Finals Sales Visualization (Jquery, CSS, 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. This project gave me experience on translating data into something that we could interpret.

Graph API - Trip Finder (Java)

I wrote a Graph API and used it to create a trip finder using vertices as locations and edges as roads. I used several different search algorithms and it was a great experience working with a large program.

Stock-learning (Python)

The goal of this project is to create a multi-agent program that sweeps through stock data and makes different predictions. We have set up a server with years of historical data and have a written a python module as an interface with our server. I'm working on different agents for clustering, and predicting overall trends. This project is still in its infancy but it has a lot of potential.

Computing Skills

Python, Java, C, Javascript, HTML, CSS, SQL

Work Experience

Emarketing Intern at Fanatics Inc. (June 2015 - August 2015)

I interned for a sports retail company that powers the e-commerce websites of all major professional sports leagues. I worked on different projects, a sales visualization using CartoDB (a maps platform) and generating keyword suggestions through Google's AdWords API and Keyword Query Reports. This internship gave me insight into the volumes of data that are handled in real world applications. Most of my projects included working with millions of sales data points and being able to process them efficiently.

Undergraduate Student Instructor for CS61B (January 2016 - May 2016)

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.

Undergraduate Student Instructor for CS10 (December 2014 - Present)

I taught the 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. Having taught this class has given me the ability to communicate complex computing ideas to people who don't have programming experience.

Upper Division Courses

CS188: Artificial Intelligence

CS189: Machine Learning

CS170: Algorithms and Intractable Problems

CS162: Operating Systems

CS161: Computer Security