

# Brian Oh

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## Experience

### POS Portal

Sacramento, CA

SOFTWARE DEVELOPER INTERN

May 2016 - Current

- Executed full lifecycle software development including gathering design specifications and requirements from clients, developing Apex classes/triggers and Visualforce pages, and testing implementations before pushing to production.
- Helped integrate POS Portal's Salesforce application with Heroku, a cloud PaaS infrastructure, to allow Salesforce incompatible tasks to be deployed into a scalable environment.
- Authored 5+ Apex classes/triggers and 5+ Visualforce pages.

## Projects

### BasicDB

C++

A FUNCTIONAL AND ROBUST RELATIONAL DATABASE ENGINE

2016

- Implemented a parser class that tokenizes user input and verifies whether the input is a valid SQL query. Valid queries are then transformed into expression trees and evaluated.
- Implemented classes that handle creating tables, inserting records, and projecting records by interpreting expression trees.
- Implemented a B-Tree index class that creates a B-Tree and an index file for all keys and primary keys for fast record access.
- Implemented Nested Loop Join, Hash Join, and Index Join. The program chooses the most optimal join by evaluating the statistics kept in the table and index files.

### Gender Recognition Artificial Neural Network

Java

AN ANN THAT LEARNS TO RECOGNIZE A PERSON'S GENDER IN A PHOTO

2016

- Implemented a multi-layered feed-forward network by implementing sigmoid node, hidden layer, and output layer classes.
- Implemented a parser class that converts a .PNG file into a text file containing the corresponding grayscale pixel values to be used as a vector of input nodes. The input nodes are then fed forward along connecting pathways to the output node to determine whether the picture was male or female.
- Implemented a backpropagation algorithm to calculate the gradient of error regarding the network's modifiable weights.

### Connect 4 AI

Java

AI THAT USES THE MINIMAX AND ALPHA-BETA PRUNING ALGORITHMS TO PLAY CONNECT 4

2016

- Implemented minimax and alpha-beta pruning methods using recursion and a custom evaluation method.
- Implemented an evaluation method that determines the value of a given state by assigning appropriate weights to the amount of three-in-a-row's and two-in-a-row's for both players.

## Education

### University of California, Davis

Major GPA: 3.00

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Sept. 2011 - Current

- Expected Graduation: Dec. 2016
- Community Service Award (2014)
- Dean's Honor Roll

## Technical Skills

### Languages

Java, C/C++, Python, Javascript, HTML & CSS, Apex, Visualforce, Bash

### Frameworks & Tools

Salesforce, jQuery, Bootstrap, Eclipse, Git, SQL, R, MATLAB, Unix

## Certifications

### NREMT EMT-B

Current