Brian Oh

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Experience

POS Portal

Sacramento, CA

Software Developer Intern

May 2016 - Current

- *Needs to be completed*
- *Needs to be completed*
- *Needs to be completed*
- *Needs to be completed*

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

Program that learns to recognize a person's gender in a photo by using an ANN

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 program 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

Davis, CA

Bachelor of Science in Computer Science

Sept. 2011 - Current

Expected Graduation: December 2016

Technical Skills

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

Frameworks & Tools Salesforce, jQuery, Bootstrap, Eclipse, Git, SQL, R, MATLAB, Unix

Honors & Awards

UC Davis Dean's Honor Roll 2013

UC Davis Community Service Award 2014

Certifications

NREMT EMT-B Current