Brian Oh

1424 Pinnacles Street Davis, CA 95616

(714) 900-6795 | bmoh@ucdavis.edu | brianmoh.github.io | brianmoh | brianmoh

Technical Skills

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

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

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 10+ Apex classes/triggers and 10+ Visualforce pages.

Projects

BasicDB — *C++*

A functional and robust relational database engine — *2016*

- Implemented a parser that executes syntax and semantic validation. Valid queries are then transformed into expression trees to be later evaluated.
- Implemented a data management layer that handles all data I/O by interpreting expression trees.
- Implemented a database B-Tree index that creates a B-Tree and an index file for all keys and primary keys for fast record access.
- Implemented a query optimization layer that analyzes metadata to determine the optimal query plan. The query plans that were implemented include: Nested Loop Join, Hash Join, and Index Join.

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 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 — *Sept. 2011 - Current*

Bachelor of Science in Computer Science — *Expected Graduation: Dec. 2016*

- Community Service Award (2014)
- Dean's Honor Roll

Certifications

NREMT EMT-B Current