

MARCO MERCADO

📧 Marcomerc — ✉ mam@cpp.edu — in Marco Mercado — ☎ 909.247.5084

EDUCATION

California State Polytechnic University, Pomona 2020

Master of Science in Computer Science

- Relevant Courses: Deep Learning, Software Engineering, and Advance Computer Architecture

University of California, Riverside

2018

Bachelor of Science in Computational Mathematics

Overall GPA: 3.35/4

- Relevant Courses: Intermediate Data Structures & Algorithms, Software Construction, Database Management Systems, Operating System Design, Machine Learning & Data Mining, Design & Architecture of Computer Systems.
- Dean's List.

TECHNICAL STRENGTHS

Languages C/C++, Python, JavaScript, Java, MATLAB, SQL, PostGreSQL, Bash Script, HTML, CSS.

Software & Tools Bootstrap, Git, Express, MongoDB, Heroku, Node.js, NPM, LaTeX, TensorFlow, EJS.

Other skills Linux environment, Object Oriented programming.

EXPERIENCE

Research Assistant

Feb 2019 - Present

California State Polytechnic University, Pomona

Dr. Mohammad Husain

- Developing a Neural Authentication Systems with EEG waves as a key.
- Applied statistical analysis to data in order to reduce noise and classified events in EEG

Undergraduate Research Assistant

April 2018 - Dec 2018

University of California, Riverside

Dr. Keogh

- Data mined time series to find conserved motifs and analyzed the significance of the motifs.
- Designed algorithms that compare different time series for similarities and output a visualization.
- Classified time series and predict unknown labels for a given time series using K-nearest Neighbor.
- Implemented time series anomaly algorithm to the detect anomalies among a given set of time series.
- Retrieved time series from C3D files used to store 3D body movement over time.

PROJECTS

Yelp Camp JavaScript, Node.js, Express, EJS, NPM, MongoDB, HTML, CSS

August 2018

- Built a MEAN Stack Application similar to Yelp, but design to add, rate, comment, and Delete Campsites.
- Designed a database on MongoDB to stored and retrieved all the information of the users and campsites.
- Implemented user authentication with password hashing using NPM passport for a secured Application.

Airline Database Java, PostgreSQL

April 2018

- Designed a Database schema for an airline using ER diagrams to fulfill the requirements of the airline.
- Implemented queries for flight-search, and number of available seats for a given flight, and Book a Flight.
- Collaborated with a partner to implement the database, meet deadlines, and used git as a version control.

Airport Shuttle C++, Csim

June 2018

- Developed an Airport Shuttle Simulation with CSim a concurrent simulation library.
- The user entered the number of terminals, shuttles operating and the shuttles' time between terminals.
- Computed the most optimal wait time for passengers in order to minimize the shuttle system operating cost.

Rshell C++, Bash Script

June 2017

- Created a UNIX shell like using the command pattern to capture the commands.
- Designed a tree to implement UNIX operators and to control the execution order of the commands.
- Implemented Unix features such as && , || , () precedence, checking if a file or directory exist, and piping.

Breast Cancer classifier Python, TensorFlow

March 2018

- Implemented a Neural Net to classify cancerous cells base on features collected by medical professionals.
- The Neural Network was trained with the Adam optimizer and classified 98% corretly on the testing set.