

# Jonathan Candelaria

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Currently seeking an entry-level position which will allow me to utilize my programming experience and display my technical skills.

## Education

### University of California, Riverside

Aug. 2014 - Mar. 2017

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Related Coursework - Data Structures and Algorithms, Machine Organization and Assembly Language Programming, Circuit Analysis, Computer Architecture, Embedded Systems, Computer Networks, Database Management Systems, UNIX System Administration, Design of Operating Systems, Artificial Intelligence

## Projects

### Big Data Project - Python, Perl, SQL

Mar. 2016 - Jun. 2016

SENIOR DESIGN

- Used Twitter API to collect roughly 40M tweets and perform sentiment analysis on top trending hashtags.
- Wrote python scripts to collect tweets and perform sentiment analysis on dataset.
- Wrote Perl script to parse through collected tweets and create .csv files to be used in SQL database.
- These scripts and queries allowed teammates to create heatmaps of hashtags based on positive/negative sentiment using Google Maps API.

### Messenger Database System - PostgreSQL, Java

Jan. 2016 - Mar. 2016

DATABASE MANAGEMENT SYSTEMS COURSE

- Given specifications, created SQL database and developed a terminal based online messenger system similar to Facebook Messenger.
- Features include: Changing user login/password; Adding/Deleting from list of contacts; Adding/Blocking users from chat; Ability for users to edit/delete messages.
- Created several indexes and triggers to optimize search queries.

### rhell - C++

Jan. 2015 - Mar. 2015

SOFTWARE CONSTRUCTION COURSE

- C++11 implementation of a basic UNIX shell, rhell parses through user input (with Boost Tokenizer) and executes valid commands. Supports I/O redirection, process suspension, and signal handling.
- Recreated the ls program using C++11, features include able to list hidden files, file properties, and list files/directories recursively.

### Simple Twitter Application - Python

Aug. 2015 - Dec. 2015

COMPUTER NETWORKS COURSE

- Created a terminal based client-server application with socket programming based on Twitter using TCP/IP.
- Using Mininet, created custom network topology for 1 server and up to 3 clients.
- Server features include: managing users subscriptions and real-time distribution of client messages to subscribers.
- Client features include: editing followers/subscriptions, view trending topics/hashtags, read offline messages, post messages to followers.

### Micro-Controllers - C

Jan. 2015 - Dec. 2015

EMBEDDED SYSTEMS COURSES

- Used ATmega1284 micro-controller and FreeRTOS task scheduling to create a simulated security alarm system in Embedded Systems course using USART communication between micro-controllers.
- Components included: IR sensors used for motion detection, Microphone and temperature sensor, LCD screens, keypads for user interface.
- Recreated the Simon Says memory game using an 8x8 led matrix and an LCD screen. EEPROM was also used to store the high score.

## Skills

PROGRAMMING LANGUAGES

C/C++ (Proficient), Java (Prior experience), SQL (Prior experience), Bash scripting (Prior experience), Python (Prior experience), Perl (Prior experience), Verilog (Prior experience)

OPERATING SYSTEMS AND APPLICATIONS

Linux(Ubuntu, CentOS), UNIX, Windows, Git, GDB, Valgrind, Synopsys Custom Designer, Xilinx, Atmel Studio, Visual Studio

PLAINTEXT LINKS

<https://www.linkedin.com/in/jonathanecandelaria/>  
<https://github.com/jecan>  
<https://jecan.github.io>