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EDUCATION

- California State University, Long Beach 2012 - 2016
- Bachelor of Science in Computer Science

COMPUTER SKILLS

- **Languages:** Java, C++, C, C#, Android, Python, Clojure, Javascript, node.js, MySQL, MongoDB Html, CSS, Erlang
- **Operating Systems:** WIN XP, 7, & 8, Linux/Ubuntu/Slackware/Raspbian (Raspberry Pi)

OTHER COMPUTER SCIENCE SKILLS

- Experience with Linux System administration
- Agile development and JIRA
- Standard Software Development Lifecycle

WORK EXPERIENCE

- **zero5**
From: August 2017 - Current
Job Title: Software Developer
Worked on and working on various software modules in Java (Custom Server with MYSQL database, finished), Android (Mobile app prototype, finished), and node.js (custom server with MongoDB database); Can't disclose much more than this.
- **Culinarian culinarian.me**
From: January 2016 - Current
1250 Bellflower Blvd, Long Beach, CA 90840
Job Title: Android/Java Developer
Description: Worked on the user interface and logic for android users, UI developed with fragments, developed the flow of activities, designed android code for posting, user profiles, user accounts debugged and tested my own code using my phone with Android Studio debugging tools. The app is designed to have a feed similar to that of Facebook or Twitter (Feed coded by me), the app has a user profile section where other users can view what this person has done as both a student and mentor (also coded by me), will have a section for streaming video (currently being worked on by me), has a calendar section for planning events like video streams (currently being worked on by me), and message section where users can send and read DMs (Coded by me). Also created the Gitlab private repository for the project.
- **Independent Developer**
From 2015 - Current
15032 Eton Circle, Huntington Beach, CA 92647
Job Title: Android/Java Developer
Project: Math Scratch

Current

Open Source app I am currently making to help kids practice math in school. Free for all to use and optimized for large screens as most schools have chromebooks or tablets right now.

<https://github.com/joe564338/MathScratchAndroid>

Project: Reactionary

June 10, 2015 - June 15, 2015

Game I made where players try to tap as many items on the screen as possible in a 30 second time limit. Developed using Android studio. I coded a game thread to update the game and coded a Custom Surface View to draw the game to the screen. I tested and debugged my own code using my phone and Android Studio debugging tools

Link: <https://play.google.com/store/apps/details?id=com.packages.joe.reactionary>

Project: Simple Reaction Test

March 3, 2017- March 4, 2017

Created a program to test reaction speed where when the test starts the user has to tap the screen when a red circle in the middle of the screen turns yellow and if they try to tap before that happens they receive a penalty to their time. The user repeats for 5 times and at the end the times are averaged and shown to the user. The user also sees his/her fastest time which typically is the last one because of human instincts kicking in because of the circle becoming bigger as it changes color. Used the same software architecture as reactionary. I tested and debugged my own code for this project.

Link: <https://play.google.com/store/apps/details?id=com.packages.joe.reactionpracticeworking>

- **Denso Robotics densorobotics.com**

From: July 15, 2015 To: August 25, 2015

3900 Via Oro Ave, Long Beach, CA 90810

Job Title: C# developer

Description: Worked as an intern for 3d bin picking project. Worked as C# developer for the project. I used Denso's libraries to interface with robot arm, used a UDP connection to retrieve data from 3D scanner which was big endian so I had to reverse the byte order for the C# program. I had to test and debug my own code as well, used Visual Studio debugging tools for this. Scanned object multiple times, then stitched the scans together; also used Wireshark for debugging/testing purposes, mainly for testing packet flow from scanner to computer.

SOME PROJECTS

- **Spooce**

May 30th 2018 - Current 2018

Title : Python Developer

Python game I am currently working on using pygame. Currently graphics are simplistic but I am mostly trying to just get a working playable game with all the features I want. It is a top down perspective exploration type of game with game objects exerting significant gravity to induce the player into an orbit around the game objects or at least affect the player's trajectory. Has scrollable camera. Minimap almost done.

<https://github.com/joe564338/spooce>

- **NumberRec**

May 1, 2018

Title: Python Developer

Simple image recognition for single digit numbers. Made using Tensorflow and Keras. Uses matplotlib to help illustrate what is going on.

<https://github.com/joe564338/NumberRec>

- **Stock Predictor Neural Network**

April 4th 2017- April 5th 2017

Title: Python Developer

Description: Personal project I developed on my own that developed stock prices using a number of libraries in python including Keras and TensorFlow. The application was a neural network written using Keras and TensorFlow that took a massive list of stock prices in a given year and made predictions of what stock prices could be in that same year in specific intervals. The more it was trained the better it got at predicting. It would display its projections on a graph that showed the real stock prices as well as its predictions. This project was done with Jupyter Notebook.

Link: <https://github.com/joe564338/StockPredictor>

- **JoeOS Operating System**

March 20, 2017 - current

Title: C developer

Description: Using linux to write a basic operating system in C that I am calling JoeOS in which I have already made it bootable. I just have to add additional functionality to make it useable with applications. The entire project is not just C as there is a small amount of assembly to tell where to boot from, but it is mostly C.

Link: <https://github.com/joe564338/JoeOS>

- **Neural Thingy**

November 1, 2016

Title: Java Developer

Description: Basic Artificial Intelligence Neural Network example in java. Has 3 layers: 3 input nodes 4 hidden nodes and 1 output node. Learns outputs from its given inputs and expected outputs using back propagation.

<https://github.com/joe564338/NeuralThingy>

- **Senior project**

September 2016 - December 2016

Title: Java Developer

Description: Worked in a team to design and develop a piece of software to record and display field data for scientists. The application was developed using the Standard Software Development Lifecycle. We wrote a Request For Proposal paper, a Requirements Analysis Document, a list of scenarios, a list of use cases, a list of objects, a list of methods, Class Diagrams, and Sequence Diagrams. My responsibility was to develop the UI for recording data and displaying detailed data to the user, I also had to interface with another member's code in which he developed a map for me to display where certain studies were done. I also developed a search feature which allowed users to search for keywords in studies and display relevant ones.

Link: <https://github.com/harrisonbalogh/TS3-Data-Bro>

- **Intelligent Stage**

June 15, 2015 - July 10, 2015

Title: Arduino Developer

Description: Extracurricular school project where I had to design an automated door and control it with an Arduino. I used a motor shield with the arduino to control the door motor. I also coded the arduino code myself. I used insteon hardware to control the arduino that controls the door.

Link: <https://github.com/joe564338/door>

- **Othello and Tic Tac Toe in C++**

February 3, 2014 - May 3, 2014

Title: C++ developer

Description: Object oriented design of Othello and Tic Tac Toe board games. The application asks the user which game to play and the user proceeds to play their chosen game. No AI implemented yet. The game has options to display available moves, undo a set number of moves, show history of moves, and show who is winning. <https://github.com/joe564338/Othello-tictactoe>