

Josh Fernandes

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EXPERIENCE

Budget Planner	Long Beach, CA	January 2018
<ul style="list-style-type: none">• Created with Python/PyQt.• User enters annual salary, and program calculates state taxes, federal taxes, and monthly income.• Program also contains fields to input various expenses in order to calculate remainder to go into savings.		
Online To-do List	Long Beach, CA	November 2017
<ul style="list-style-type: none">• Online to-do list that stores a unique list for each user using SQLite and Django.		
Hex Board Game	Long Beach, CA	October 2017
<ul style="list-style-type: none">• Completed one version with Python/PyQt and then created a more interactive version with Angular.• Angular version updates hex size, number of hexes, and orientation of the board in real time.• Has the ability to create a shortest distance line between two clicked hexes.		
NASA Independent Contractor	NASA JPL Pasadena, CA	January 2014-June 2017
<ul style="list-style-type: none">• I used the IDL programming language to filter images of Jupiter and characterize chemical properties of Jupiter's north and south pole.• I was tasked with creating a program to incorporate amateur photography into the NASA database system. The project was completed ahead of schedule and has already saved hundreds of hours of man-power.• I created a suite of code to automate the process of reducing images taken by ground-based infrared telescopes.		
Scheffler Solar Concentrator Research	California Polytechnic San Luis Obispo, CA	March 2012-June 2013
<ul style="list-style-type: none">• I designed a Solidworks model of a thermal storage unit for a Scheffler solar concentrator, and also built a physical unit using materials available to third-world countries.• I was responsible for the entire design, testing environment, and modifications based on the results from physical tests.		
Number Database Website	San Luis Obispo, CA	Summer 2011
<ul style="list-style-type: none">• Created website using Python/Flask as the backend and stores the data in JSON format.• Website takes into account screen resolution and has a mobile version for various phones and OS versions.		

COMPUTER SKILLS - (7 years experience)

Extensive knowledge and scientific programming experience in Python, IDL, LabView, R, & Fortran.

Extensive knowledge and application development in C++, Matlab, Xcode, & Java.

Frontend web development in HTML5, PHP, Angular, Backbone, Bootstrap, jQuery, & Javascript.

Backend web development in Flask, Django, MySQL, SQLite, JSON, Express, & Node

Proficient programming skills in Mathematica, Excel, Linux, Mathcad, Solidworks, & Bash.

EDUCATION

CSU Long Beach, Long Beach, CA

Master of Science, Physics, May 2017

G.P.A. 3.75/4.0