

## Josh Fernandes

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### EXPERIENCE

<b>AV-8B Software Engineer</b>	DCS Corp China Lake, CA	June 2018-Current
<ul style="list-style-type: none"><li>Assisted development on C# desktop application by creating new features, bug testing, and updating legacy code.</li></ul>		
<b>Budget Planner</b>	Long Beach, CA	January 2018
<ul style="list-style-type: none"><li>Created with Python/PyQt.</li><li>User enters annual salary, and program calculates state taxes, federal taxes, and monthly income.</li><li>Program also contains fields to input various expenses in order to calculate remainder to go into savings.</li></ul>		
<b>Online To-do List</b>	Long Beach, CA	November 2017
<ul style="list-style-type: none"><li>Online to-do list that stores a unique list for each user using SQLite and Django.</li></ul>		
<b>Hex Board Game</b>	Long Beach, CA	October 2017
<ul style="list-style-type: none"><li>Completed one version with Python/PyQt and then created a more interactive version with Angular.</li><li>Angular version updates hex size, number of hexes, and orientation of the board in real time.</li><li>Has the ability to create a shortest distance line between two clicked hexes.</li></ul>		
<b>NASA Independent Contractor</b>	NASA JPL Pasadena, CA	January 2014-June 2017
<ul style="list-style-type: none"><li>I used the IDL programming language to filter images of Jupiter and characterize chemical properties of Jupiter's north and south pole.</li><li>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.</li><li>I created a suite of code to automate the process of reducing images taken by ground-based infrared telescopes.</li></ul>		
<b>Scheffler Solar Concentrator Research</b>	California Polytechnic San Luis Obispo, CA	March 2012-June 2013
<ul style="list-style-type: none"><li>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.</li><li>I was responsible for the entire design, testing environment, and modifications based on the results from physical tests.</li></ul>		
<b>Number Database Website</b>	San Luis Obispo, CA	Summer 2011
<ul style="list-style-type: none"><li>Created website using Python/Flask as the backend and stores the data in JSON format.</li><li>Website takes into account screen resolution and has a mobile version for various phones and OS versions.</li></ul>		

### COMPUTER SKILLS - (7 years experience)

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

Extensive knowledge and application development in C#, 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