Gregory Sanchez

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#### EDUCATION

# **Oregon Statue University**

Corvallis, OR

Bachelor of Science in Computer Science; Cumulative GPA: 3.85

Experience

Siemens EDA Wilsonville, OR

Software Developer MECOP Intern

April - September 2019

Graduation: June 2020

- Worked with the Calibre nmOPC (Nanometer Optical Proximity Correction) team. Calibre being a design rule checker.
- Converted many csh, bash and Perl scripts into Python to improve usability and efficiency.
- o Created a full stack internal use Python CGI web platform (complete with Bootstrap and DataTables) so users can easily query for a services' information and display the queried information in a table or csv file. Data included hundreds of rows and tens of columns.
- Created another Python CGI web platform test bench to compare the output of two different CVS patches/file versions and reporting their differences. Similar to GitHub's file changes viewer.
- Remotely worked with other teams in different locations such as Fremont, CA and Moscow, Russia. Added many features and improvements to their Python based web and terminal platform. For example, made a commenting system, table of contents generator for transcript files, code coverage generator after running Calibre.
- Worked mainly with Linux getting very familiar with vim and other Linux tools.

#### PROJECTS

#### • Bloons Tower Defense 6 Video Game Website

2021-2022

- Tier List website for Bloons TD 6 that also includes ground breaking information about the game that is not easily supplied by the game itself.
- Created a full stack serverless web application developed with Next.js.
- o Complete with Material UI, Emotion Styled Components, Redux state, an open access GrahpQL API endpoint, MySQL database backend, Google Analytics 4, Google AdSense.
- Accessible at https://bloonstl.netlify.app/. Community Reddit post viewable at https://www.reddit.com/r/btd6/

# Object Detecting Research Vessel

Fall/Winter/Spring 2020

- Senior project team of five tasked to create an object detection algorithm for ocean research vessels. Worked in three different phases within the school year: research, design, implement/test.
- Researched many object detection algorithms to settle with OpenCV using Python 3.
- Designed an algorithm to manipulate and transform an input photo given the vessel's inertial measurements.
- Implemented a working version that was placed on a research vessel with an Intel Nuc and tested in real open waters. The project correctly identified and reported objects in its view.

## Canvas LMS Mock API

Winter 2020

- o Team of two. Created Node.JS express server to implement an entire RESTful API. API handles login and authorization. API also handles GET/PATCH/POST/DELETE of courses, assignments, users.
- o Complete with JSON Web Tokens, Node BCrypt, Mongo Database backend, RabbitMQ, Docker Compose

## Programming Skills

• Languages: Python, JavaScript, C/C++, Java Technologies: Next.js, React, Node.js, Git, Linux, LATEX