

□ (408)-841-1213 | Isteven8841@gmail.com | # www.stevenli.dev | Itz-shiny | I

## **Skills**

Programming Python, Java, C++, C#, Mathematica, Node.js, LaTeX, SQLite, Flask, SQL, MATLAB, Unity

Web HTML5, CSS, JavaScript, PHP, MySQL, AWS

Languages English, Cantonese (oral)

**Other** LabView, LTspice, EAGLE, SOLIDWORKS, Soldering, Bioinformatics

## **Education**

San Jose State University
San Jose, California

BACHELOR OF ARTS IN PHYSICS & MINOR IN COMPUTER SCIENCE | 3.4 OVERALL GPA

May 2019

# **Experience**

#### Undergraduate Research, Optics (Prof. Christopher Smallwood) at SJSU

San Jose, California

RESEARCHER Aug. 2018 - May 2019

- Designed and constructed a prototype of a high frequency photo-detector that detects and corrects for room variations in optical spectroscopy
  experiments of novel solid-state materials.
- Reduced original circuit design dimensions by 50% allowing the device to be more compact and flexible.

# **Projects**

# Machine Learning Classification of Foreground Dwarfs and Background Giants in the Perseus Cluster

San Jose State University, California

TOPICS IN MODERN ASTROPHYSICS - RESEARCH ON GALAXIES AND DARK MATTER FINAL PROJECT

May 2019

- In collaboration with another classmate, we classified foreground dwarfs within the Perseus cluster with a 95.58% accuracy and background giants with a 100% accuracy with machine learning and presented it to our instructor and peers within a shorten deadline.
- Collected known data on galaxies in the Perseus and nearby clusters NGC 383 and 507, catalogued them into foreground and background data set and performed SVM on the data sets in Jupyter Notebook with sci-kit python library and feature engineering to construct a model that discriminates between them using unconventional and non-obvious feature relationships.

#### **Exhaustive Algorithm Approach to tRNA Secondary Structure Prediction**

San Jose State University, California

BIOINFORMATICS | FINAL PROJECT | PROGRAMMER

May 2019

- Developed and launched a XAMPP server-side web application with a PHP back-end and MaterializeCSS front-end framework hosted on a AWS EC2 Ubuntu instance to predict tRNA secondary structure pairings.
- Application implements a brute-force algorithm constructed specifically to predict the most probable tRNA secondary structures pairings with 100% accuracy for the 4 standard RNA bases that was developed in partnership with a Biology major classmate.

Paper Warriors San Jose State University, California

Introduction to Game Studies - Videogame Group Final Project | Producer and Secondary Programmer

Dec. 2018

- Collaboratively worked with a team of 4 to plan and develop a simple fighting game centered around Rock-Paper-Scissors type of attacks as a core mechanic featuring three playable stages, characters and soundtracks made in Unity.
- Planned and coordinated the development flow and direction of the game's content and mechanics as the project's main producer and the game's secondary developer.
- Showcased final project to a open house project presentation as a live demo.