

# SHAWN LONG

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## Education

**University of California, Riverside**  
Pursuing B.S. Computational Mathematics

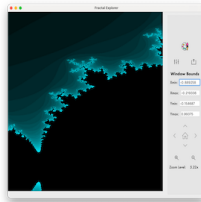
*Expected June 2022*  
*Current GPA: 4.0*

### Riverside City College

A.S. Math and Science with Distinction  
A.A. Communication, Media and Languages with Distinction  
A.A. Humanities, Philosophy and Arts with Distinction

*July 2020*  
*June 2019*  
*June 2019*

## Relevant Projects



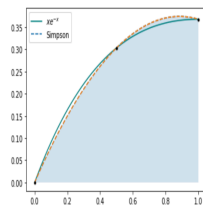
### Fractal Explorer in C++

This program served as a final project in Discrete Structures for Riverside City College. The purpose of the app is to demonstrate understanding of recursive sequences and series as well as sets. This project uses the recursive function discovered by Benoit Mandelbrot,  $Z(n+1) = Z(n)^2 + C$ , and renders values in the complex plane.



### Task Assigner in C++

This project is a Qt application created for CS 100: Software Construction at UC Riverside. It was created by a group of 3 students, myself included, using the Composite, State and Strategy pattern. The app is cross platform with a Mac executable available in the release.



### Numerical Integration in Python

This project is a Python based Jupiter Notebook created on Google CoLaboratory for a course in numerical analysis at UC Riverside. I use NumPy and Matplotlib to plot a curve as well as various approximation methods for its integral. I also use Markdown and LaTeX to format equations and document my analysis of the closest approximation.

## Languages

C++, Python, LaTeX, Markdown, Unix, familiarity with Java

## Technologies

Git, Tableau, Google Analytics, Jupiter Notebooks, AWS, Azure Cloud

## Work Experience

### **IT & Analytics Advisor | Haven Ministries**

**November 2016 - Present**

Performed detailed quantitative analysis for a non-profit radio program. Conducted database queries, visualized data and shared findings with executives. Used analytical methods to improve fundraising campaigns.

### **Graphic Designer, Operations Manager | Picmats, LLC**

**March 2014 - November 2016**

Started as a graphic designer, creating personalized wall art prints for clients. After being promoted to operations manager, managed inventory, and conducted team meetings.

### **Technician | \$99 PC Repair Centers**

**October 2013 - March 2014**

Diagnosed and repaired electronic equipment such as computers, game consoles, phones, etc for a small computer repair shop.