# **Ryan Outtrim**

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## **EXPERIENCE**

# **Space Productions,** UT — *Freelance Project*

April 2019

Created a Python script to automatically gather information from tournament League of Legends games to store in a MySQL database for website viewing and for use during streamed matches.

Designed and implemented a framework to use existing data from Riot's League of Legends API to find the 'face' of a splash art to automatically create image splices. This automation removed the need to manually crop individual splash arts used for graphics while streaming.

# **Collegiate League of Legends** — *Analyst*

August 2016 - December 2018

Established a MySQL database to fetch and compile information from scrimmage games over the course of a season.

Processed the information using custom methods and returned statistics from players performance in a match up, pick ban percentages, and overall win rates.

## **EDUCATION AND PROJECTS**

# **Computer Science B.S.** — University of Utah, Salt Lake City

August 2016 - April 2020

GPA 3.3

- Computer Networks: Created a proxy server which filtered downloads through VirusTotal to verify if it is a safe file before saving.
- Web Software Architecture: Made a web scraper on a website which allows users to input and save items of interest and be notified when found on selected websites.
- Software Practices: Worked in an agile environment in a team of 5 to create a spreadsheet application in C# from scratch.

## **Machine Learning Tetris**

Created a neural network utilizing NumPy along with an implementation of the genetic algorithm as the learning component. Taking an input using computer vision from an existing falling blocks puzzle game to determine fitness then use that to create a new generation with improved performance. To work alongside, I created a Tetris clone in C++.

## Discord Bot

Designed a bot to take commands for the Discord application in Javascript and using SQLite as a backing database. This bot is now hosted on a home Linux server where updates can be pushed remotely.

## **SKILLS AND TECHNOLOGIES**

Data Structures, Networks, Algorithms, Statistics

Tensorflow, NumPy, MatPlotLib, CV2, Spreadsheets, MongoDB, MySQL

PyCharm, IntelliJ, Visual Studio, VS Code, GitHub

Communication, Time Management, Problem Solving, Teamwork

## **LANGUAGES**

Proficient:

Python

C++

Familiar:

Javascript

C#

Java

Working:

Ruby

 $\operatorname{HTML}$ 

Swift

#### **INTERESTS**

Playing Tetris to grind and improve my speed.
Traveling around Europe and Asia to see the sights.
Recreationally play Tennis.
Enjoy participating and watching Esports.
Computer science camp instructor.