# ETHAN NELSON

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### Education

### **Brigham Young University-Idaho**

Apr 2021

BS. Science in Computer Science

Rexburg, ID

Python	Machine learning	Data visualization	SQL
TensorFlow/Keras	Plotly/ Matplotlib	Clustering, Neural Nets	C++

### **Work Experience**

**Data Science Intern** 

Jan 2021-Present

Houston TX, Rexburg, ID

- Snow Data Science
  Using data visualization to create results that are easily understandable
  - Researching unsupervised machine learning algorithms pertaining to clustering and use of PCA
  - Program will work with large systems to detect and pinpoint where faults are occurring

#### Data Reviewer, Annotator

Feb 2020-Jan 2021

Research & Business Development Center

Rexbura. ID

- Conducted research under a Machine Learning Engineer in order to increase working knowledge on machine learning algorithms specifically dealing with neural networks, semantic segmentation and point cloud classification
- Built <u>neural network</u> with Point Net and TensorFlow to classify point cloud data to help achieve a fully automated warehouse.
- Correctly applied algorithms to classify point cloud data.
- Contributed to 80,000+ image data set to train machine learning algorithm in recognizing product details

## **Project Experience**

**Image Colorization** 

Nov 2019-Dec 2019

Student Project

Rexburg, ID

- Trained a machine learning algorithm using an 800+ image database.
- Deepened knowledge on Convolutional Neural Networks and image pre-processing by experimenting and researching relevant data.
- Collaborated with team to maximize efficiency in preparing training and modeling training data to speed up result time.

#### **EEG Eye-State Data Research**

Jan 2020-Feb 2020

Personal Project

Rexburg, ID

- Conducted and applied research in order to understand EEG data and how it works with machine learning.
- Built and trained a network that could classify eye state data with a 94.53% accuracy.

## Other Relevant

#### Won nation-wide youth competition | enelson8

Sept 2013

- Used multiple technologies to create a creative home improvement project.
- Innovated, designed and built a system to toggle lights from bed.
- Use of 3-D printing, Raspberry Pi, Arduino, soldering, plexiglass.