ETHAN NELSON

(770) 689-7042 | [einelson8i@gmail.com](mailto:einelson8i@gmail.com) | [linkedin.com/in/ethan-nelson/](https://www.linkedin.com/in/ethan-nelson/) | [einelson.github.io](https://einelson.github.io/)

|  |  |  |  |
| --- | --- | --- | --- |
| C++ / OOP | Python / matplotlib | Data visualization | TensorFlow / Keras |
| Clustering, Neural Nets | Machine learning | SQL | Engineering design process |

Work Experience\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Data Science Intern** Jan 2021-Present

*Snow Data Science Houston TX, Rexburg, ID*

* 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/when faults are occurring
* Creating interactive web view of fault detection project that will display results

**Data Reviewer, Annotator** Feb 2020-Jan 2021

*Research & Business Development Center Rexburg, 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 [neural network](https://github.com/einelson/Point-cloud-classification-keras) with Point Net and TensorFlow to correctly classify point cloud data to help achieve a fully automated warehouse.
* Contributed to 80,000+ image data set to train machine learning algorithm in recognizing product details
* Co-lead a team of 8+ by presenting training material and

Project Experience\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[**Image Colorization**](https://github.com/einelson/Image_colorizer/blob/master/final_report.pdf)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.

Other Relevant \_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Amateur radio user in emergency radio communication network- Technician class K7INE
* Won nation-wide youth competition. Instructables.com | enelson8
  + Innovated, designed and built a system to toggle lights from bed
* Use of 3-D printing, CAD, microcontrollers, soldering, plexiglass
* Welding and automotive mechanics

Education\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Brigham Young University-Idaho**  Apr 2021

*BS. Science in Computer Science Rexburg, ID*