## ETHAN NELSON

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### **Professional Experience**

Software Engineer May 2021-Present
ARCTEC Solutions Middleburg, VA

- Engineering automation of software installation tasks
- Designing and integrating interactive GUI/ UIX to control automated build process
- Modification of existing code to stream data more effectively than natively designed

Data Science Intern Jan 2021-April 2021

Snow Data Science Houston TX, Rexburg, ID

- Used data visualization to create results that are easily understandable
- Researched unsupervised machine learning algorithms pertaining to clustering and use of dimensionality reduction (PCA)
- Program worked with large systems to detect and pinpoint where faults were occurring

#### **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 <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.
- Lead team that contributed to 80,000+ image data set to train machine learning algorithm in recognizing product details

### Technical Experience

- Python 2.7, 3
- Machine Learning
- Data Visualization
- Tensorflow/ Keras

- Computer vision
- Networking
- Microcontrollers
- Linux

- 3D modeling (Autodesk Inventor)
- C++
- Agile/ Scrum
- Debugging

### **Education**

# **Brigham Young University-Idaho** *BS. Science in Computer Science*

Sep 2021

Rexburg, ID

**Other Relevant** 

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

Sep 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, microcontrollers, soldering, plexiglass.

#### Amateur radio operator- K7INE