ETHAN NELSON

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Professional Experience

Senior Associate, Analytics

May 2022-Present

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Remote

- Leading efforts in automation of reports and insight generation.
- Aid in the setup of automated data pipelines.

Software Engineer

May 2021-Dec 2021

ARCTEC Solutions

Middleburg, VA

- Automated software installation tasks.
- Modified existing code to stream data more effectively than natively designed.
- Presented research findings to a team of engineers.
- Created data dissemination tool to pull data from APIs and remote databases to store into a local database.
- Applied programming to signal intelligence applications

Data Science Intern *Snow Data Science*

Jan 2021-April 2021

Houston TX, Rexburg, ID

- Used data visualization to create results that were easily interpreted by humans.
- Researched unsupervised machine learning algorithms pertaining to clustering and use of dimensionality reduction (PCA).

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.

Research Projects

Fault Detection- Research on predicting faults in oil pipelines. Use of unsupervised machine learning and dimension reduction to predict and then visualize groupings. Sponsored by <u>Snow Data Science</u>.

Image Colorization- Predicted the colored counterpart of grayscale images. Research into different color spaces such as LAB. Applied findings to different use cases such as image compression.

Point Cloud Classification- Use of neural networks to predict classification of point cloud images for use in robotic warehouses. Dealt with lidar imagery.

<u>Technical Experience</u>

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

- SQL/ NoSQL
- Computer vision
- Object oriented (OOP)
- Linux (Ubuntu, RedHat)
- 3D modeling (Autodesk Inventor)
- Agile/ Scrum
- Debugging
- Networking

Education

Brigham Young University-Idaho BS. Science in Computer Science Data Career Jumpstart Data science project experience Sep 2021 Rexburg, ID Present Remote