

ETHAN NELSON

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Education

Brigham Young University-Idaho

Apr 2021

BS. Science in Computer Science

Rexburg, ID

Advanced:

- Python/Machine Learning
- C++

Competent:

- Keras, TensorFlow, NumPy, Pandas
- HTML, CSS, JavaScript

Project Experience

Point Cloud Classification

Jun 2020-Oct 2020

RBDC/Lineage

Rexburg, ID

To classify point cloud data.

- Studied new algorithms pertaining to point cloud classification.
- Experimented with point net using TensorFlow to help create a fully automated warehouse.
- Applied algorithm correctly predicted point cloud data.

Image Colorization

Nov 2019-Dec 2019

Student Project

Rexburg, ID

To predict the colored counter part of a black and white image.

- 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

To preform research and see if a Deep Neural Network could classify data on EEG node locations and neural network activations.

- 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.

Work Experience

Data Reviewer, Annotator

Feb 2020-Present

Research & Business Development Center

Rexburg, ID

To assist Lineage Logistics in data preparation. To assist in preparing the data to train various machine Learning algorithms in order to create a fully automated, machine run warehouse.

- Built neural network with Point Net and TensorFlow to classify point cloud data.
- Contributed to 80,000+ image data set to train machine learning algorithm to maximize efficiency in recognizing barcodes on warehouse shipments
- Conducted research under a Machine Learning Engineer in order to increase working knowledge on machine learning algorithms specifically dealing with Neural Networks and Semantic Segmentation

Front-End Developer

Sep 2019- Feb 2020

House Cleaning Captains

Rexburg, ID

Assisted a local startup company in designing a website and increasing exposure

- Built website to increase public exposure and increased exposure by 200% through use of SEO

- Maintained and updated website to help company maintain a professional appearance as well as allow workers to view/manage appointments

Other Relevant

Amateur Radio Operator

March 2020 – Present

- Participated in ERC communication channel (Emergency radio communication East Idaho).

Volunteer Representative- 2 year assignment

Apr 2016 – Apr 2018

London, England

- Helped others set and plan to meet goals.
- Dedicated time to serve others. Lead 6 other volunteers- trainings, overseeing statistics.

Won nation-wide youth competition

Sept 2013

Instructables.com

- Used multiple technologies to create a creative home improvement project.
- Use of 3-D printing, Raspberry Pi, Arduino, soldering, plexiglass.