

ETHAN NELSON

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Education

Brigham Young University-Idaho
BS. Science in Computer Science

Apr 2021
Rexburg, ID

Skills

Machine Learning:

- Python
- Keras / Tensorflow
- Sequential Models
- NumPy, Pandas

Computer Science

- Python
- C++
- Javascript

Project Experience

Image Colorization

Nov 2019-Dec 2019

Student Project

Rexburg, ID

The purpose of this project was to train a convolutional neural network 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

The purpose of this project was to preform research on EEG data and see if I could create a Deep Neural Network that could accurately classify the data. Research was performed 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 Annotator, Reviewer, Machine Learning Consultant

Feb 2020-Present

Research & Business Development Center

Rexburg, ID

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

- Helped debug annotation tools pertaining to point cloud annotation to help create fully automated warehouse
- 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

Carpenter

Jul 2019- Feb 2020

Brigham Young University-Idaho

Rexburg, ID

Assisted in major university remodels including changing 1000+ doors campus wide, maintenance of ceiling and construction of shelving units

- Modified set plans to maximize efficiency in project execution by 100%
- Learned new skills pertaining to carpentry by listening and application in order to achieve professional results

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

Eagle Scout Recipient

Oct 2015

The Boy Scouts of America

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