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
- KNN, Neural Networks, Clustering, Point Cloud

Topics studied:
- Machine learning and data mining
- Computer security
- Software engineering

Work Experience

Data Reviewer, Annotator   Feb 2020-Present
Research & Business Development Center   *Rexburg, ID*
- Conduct 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.
- Build neural network with Point Net and TensorFlow to classify point cloud data to help achieve a fully automated warehouse.
- Correctly apply algorithms to guess point cloud data.
- Contribute to 80,000+ image data set to train machine learning algorithm to maximize efficiency in recognizing barcodes on warehouse shipments.

Front-End Developer   Sep 2019- Feb 2020
House Cleaning Captains   *Rexburg, ID*
- Built website to increase public exposure of local startup and increased exposure by 100% through use of SEO.
- Maintained and updated website to help company maintain a professional appearance as well as allow workers to view/manage appointments.

Project Experience

Image Colorization   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.

EEG Eye-State Data Research   Jan 2020-Feb 2020
Personal Project   *Rexburg, ID*
- 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.

Other Relevant

Amateur Radio Operator (K7INE)   March 2020 – Present
- Participated in ERC communication channel (Emergency radio communication East Idaho).

Volunteer Representative | *The Church of Jesus Christ of Latter-day Saints*   Feb 2016 – Feb 2018
London, England
- Helped others set and plan to meet goals.
- Lead 6 other volunteers- trainings, overseeing statistics, reported status metrics.

Won nation-wide youth competition   Sept 2013
Instructables.com
- Used multiple technologies to create a creative home improvement project.
- Project included designing and building a system to toggle lights from bed.
- Use of 3-D printing, Raspberry Pi, Arduino, soldering, plexiglass.