ETHAN NELSON

(770) 689-7042 | [ethanisaacnelson@gmail.com](mailto:ethanisaacnelson@gmail.com) | [linkedin.com/in/ethan-nelson/](https://www.linkedin.com/in/ethan-nelson/) | <https://einelson.github.io/> | Secret Clearance

Professional Experience\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Senior Associate, Analytics** Jan 2022-Present

*iProspect*  *Remote*

* Leading efforts in automation of data delivery by architecting new pipeline logic and managing team of data engineers.
* Engineering new data pipeline that is increasing efficiency in runtime over legacy application by ~250%.
* Solving problems dealing with ad-hoc requests by having a solid understanding of SQL, data transformations and important KPIs. Revamped dashboard to aid in requests and highlight important KPIs.
* Building data scripts to transform and join data to help case study dealing with 50% unattributed data points.

**Software Engineer** May 2021-Dec 2021

*ARCTEC Solutions*  *Middleburg, VA*

* Automated software installation tasks.
* Created data dissemination tool to pull data from APIs and remote databases to store into a local database.

**Data Science Intern** Jan 2021-April 2021

*Snow Data Science Remote*

* 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 [neural network](https://github.com/einelson/Point-cloud-classification-keras) with Point Net and TensorFlow to classify point cloud data to help achieve a fully automated warehouse.

Research/ Projects\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Co-Founder AI/ML/CV (AYQA)-** Using embedded devices to deploy remote CV ML models for industrial use. Leading embedded device software development, implementation of embedded computer vision and database architecture.

**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 [Snow Data Science](https://www.snowdatascience.org/)**.**

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

Technical Experience\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Python 2.7, 3
* Machine Learning, AI
* Deep Learning
* Tensorflow/ Keras
* Dimensionality Reduction
* Computer vision (OpenCV)
* Object oriented (OOP)
* Linux (Ubuntu, RedHat)
* Flask/ HTML/ JS
* Data Science/Analytics
* SQL
* 3D Modeling (Autodesk Inventor)

Education\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Georgia Institute of Technology**  **2022-Present**

*MS. Science in Computer Science | Specialization in Interactive Intelligence Remote*

**Brigham Young University-Idaho**  **2018-2021**

*BS. Science in Computer Science Rexburg, ID*