

# Alexander Cooper



alec.n.cooper@gmail.com



/AlecCooper



/alexander-cooper-646772108/



https://aleccooper.github.io/

## Languages

Python

## Libraries

NumPy

PyTorch

SciKit-Learn

Matplotlib

## Databases

MySQL

BigQuery

Excel

## Tools

Linux/Unix

Google Cloud

LaTeX

Git

## Projects

### Inuktitut-English Classifier

Worked with a large dataset that required cleaning, parsing and tokenization. Created an inuktitut-english word classifier using LSTMs and convolutions. Achieved a high degree of accuracy on test data after tuning of hyperparameters.

*Tools: Python, NumPy, PyTorch*

### Recreation of Self-Learning Monte Carlo Methods

The term project for Waterloo's Machine Learning in the Physical Sciences. Working in a team of 4, recreated the results of the paper Self Learning Monte Carlo Methods. Involved monte carlo simulations, linear regression.

*Tools: Python, NumPy, Scikit-Learn*

### Experiments on MNIST Dataset

Various experiments on the MNIST dataset including a multilabel classifier and variational auto encoder.

*Tools: Python, NumPy, PyTorch*

## Education

### Bachelors of Science, Physics. University of Waterloo. 2020. Varsity Track and Field

Relevant Courses: Machine Learning in the Physical Sciences, Computational Physics I/II

## Work

### Administrative Counsellor at Frontier College

2018-2019

Worked in a team to run a literacy camp in remote First Nations/Inuit communities of Attawapiskat and Inukjauk. Duties included managing a budget, organising community events, implementing a curriculum and dealing with the unique challenges of a northern life.

### Camp Director at STEM Camp

2017

Directed a camp location for a STEM Camp. Scheduled activities, supervised staff and implemented a curriculum based on Science, Technology, Engineering and Math.

### Crew Manager at College Pro Painters

2016-2017

Worked in a small team, assisted in training and supervision of new employees, Demonstrated a high degree of organization and attention to detail.

**Certifications:** Google Cloud Qwiklabs [Profile](#)