## **Udbhav Prasad**

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## **Work Experience**

### Application Programmer, Ministry of Health and Long-Term Care (MOHLTC) Sep 2020 - Apr 2021

- Wrote Python Scripts with JavaScript to edit webpages via a GUI, so that clients without expertise in webpages could update server pages for latest information and reports.
- In the need to find the maximum users the server could handle, I Performance tested servers with JMeter scripts to which resulted in determining the server constraints and bottlenecks.

#### **Education Technical Skills** Libraries Ryerson University | Toronto ON **Technologies** Languages Computer Science - BSc (Co-op) Sep 2018 - Dec 2022 Python Apache Spark PyTorch CGPA: 3.74 (Dean's List '19- '20) SQL PostgreSQL Scikit-Learn **Majoring in Computer Science** Java Apache JMeter NumPy Data Structures & OOP Scala MS Office Pandas Functional Programming Docker spaCy **Minoring in Mathematics** Linux & UNIX PySpark Calculus & Computational Methods Git Matplotlib • Linear Algebra Seaborn • Discrete Mathematics

Projects (Code on GitHub)

# <u>Trump's Tweets: Exploratory</u> <u>Data Analysis</u>

Data Analysis | NLP | February 2021

- Data Analysis on Trump's Twitter Insult Tweets to gain insights (NumPy and Pandas)
- Insights plotted on a variety of graphs and visualizations with Seaborn
- Text Classification model trained with spaCy: Predicting the year, the tweet was written based on tweet text
- Based on Kaggle dataset

## <u>Transformer Implementations:</u> <u>Library/Package (ViT, DeiT)</u>

NLP | Deep Learning | Computer Vision | December 2020 - **Ongoing** 

- Published package on <u>PyPi</u>
- Implemented: Vision Transformer,
   Data efficient image Transformer,
   Vanilla Transformer and other
   transformer models from research
   papers in PyTorch
- Attention is all you need: created a Language Translation model from German to English.
- ViT & DeiT paper: created model for classification tasks for Images.
- Trained & optimized multiple models on implementations

## Generating Fake Faces with Convolutional Variational Autoencoders

Dimensionality Reduction | Computer Vision | Deep Learning | August 2020

- Unsupervised Learning Model (Autoencoder) learns to map features of dataset of faces.
- Maps to low dimensional Latent Space where interpolation creates faces of people that never existed.
- Implemented from paper: Feature Perceptual Loss to results