# Ali Hejazizo

**ML/NLP Engineer**

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## HIGHLIGHTS

- Machine Learning Engineer with 5+ years of professional experience in design, development, and deployment of machine learning pipelines.
- Highly experienced in Natural Language Processing with 5+ years of research and industrial experience.
- Lead technical engagement with clients in presenting machine learning models and exploratory data analysis results.
- Team-player with strong communication and leadership skills.
- Founder of ApplyFund startup in 2019 that facilitates connecting brilliant students and donors, collecting over 20k CAD in the first year to help students financially.
- Mentor to Machine Learning Developers to help with their career goals with 3+ years of teaching experience in Python, Machine Learning, Deep Learning, Statistics, Linux, Git, etc. and 100+ students.

## EDUCATION

- **Master of Science** — May, 2016–Present
  *University of Alberta* — *Edmonton-Canada*
  - Computer Science — May, 2017-December 2020

## WORK EXPERIENCE

- *AltaML* — May 2018-present
  Machine Learning Engineer
  3+ years in development and deployment of machine learning algorithms:
  - Natural Language Processing
    - Chatbots
      - A project leading to two chatbot products between AltaML and clients.
      - A very simple showcase of the chatbot is deployed in my personal homepage.
    - Question answering on insurance text data to identify faults and missing fields in forms filled by customers.
    - Text classification
    - Entity extraction
    - Spelling correction
    - Sentiment Analysis
  - Financial transactional data analysis with ATB bank to analyse account usage and recommends ATB products.
    - Developed several machine learning models (with over 90% accuracy) to detect the account usage and suggest users to switch from a Business/Personal/... account to other suitable accounts types.
    - Lead to partnership with ATB for a $3.25 million investment over 3 years for 240 interns.
  - Medical data lung cancer survival analysis using RNA sequence data.
    - The most profitable project in AltaML history at its time.

- Recommendation systems that suggest relevant items to user in filling forms with insurance companies. The project included development of several recommendation engines to help users while filling claim forms.
- Financial donation data analysis to identify and predict big donors with Alberta University Hospital Foundation (UHF).
- Cancer type classification and prediction using RNA sequence data.
- COVID recovery prediction based on users medical tests data.

- University of Alberta 2016-2020

AI Research Scientist

- Paraphrase Generation by Variational Autoencoders and Metropolis–Hastings Sampling
  - Developed an unsupervised paraphrasing technique trained on SNLI and Quora dataset, introducing novel phrase-level paraphrasing technique with Variational Autoencoders.
- Mapping Macroscopic Brain Connectomes via Multidimensional Encoding, Learning, and Optimization using dMRI brain images.
  - A project between University of Alberta and University of Indiana University
  - Mapping connectomes for the arcuate fasciculus, using extremely high-dimensional sparse tensors.
  - Loading data and visualization in Matlab
  - Encoding, learning, and optimization in C with GPU parallel computing.
  - Supervisor: Dr. Martha White
- Diagnosis of Alzheimer's Disease Based on Structural MRI Images using Machine Learning Techniques.
  - Step 1: Preprocessing MRI images using Freesurfer tools.
  - Step 2: Feature extraction.
  - Step 3: Applying machine learning techniques for diagnosis task.
  - Supervisor: Dr. Jörg Sander

## SKILLS

### Programming/Scripting

- Python
  - Tensorflow
  - PyTorch
  - Sklearn
  - Gensim
  - NLTK
  - Pandas
  - NumPy
  - RASA
- MySQL
- SQLite
- MongoDB
- SPARQL
- C/C++
  - CUDA
    - cuBLAS
    - cuSparse
- Django
- HTML5/CSS3/Bootstrap/JavaScript

### Cloud/MLOps

- AWS (EC2, S3, Lambda, SageMaker)
- Azure
- GCP
- Google Big Query
- Docker

## Certificates

- Complete Guide to TensorFlow for Deep Learning with Python
- Complete Tensorflow 2 and Keras Deep Learning Bootcamp
- PyTorch for Deep Learning with Python Bootcamp
- Docker Mastery: with Kubernetes +Swarm from a Docker Captain
- Docker and Kubernetes: The Complete Guide
- Complete Python Bootcamp: Go from zero to hero in Python 3
- Python Beyond the Basics - Object-Oriented Programming
- Data Analysis Course with Pandas : Hands on

Pandas, Python

- Data Analysis with Pandas and Python
- Linux Mastery: Master the Linux Command Line in 11.5 Hours
- Linux Administration Bootcamp: Go from Beginner to Advanced
- The Ultimate MySQL Bootcamp: Go from SQL Beginner to Expert
- Machine Learning
- Python and Django Full Stack Web Developer Bootcamp
- Python for Everybody Specialization
- Parallel Programming using GPGPU and CUDA
- The Data Scientist's Toolbox
- Introduction to HTML5
- Introduction to CSS3
- Interactivity with JavaScript
- Git Complete