Amirmehdi **Sharifzad**

Software Developer · Data Scientist

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Skills

Programming Proficient in Python, familiar with C++, JavaScript, Swift, MATLAB

Libraries/Tools Git, Unix, TensorFlow, PyTorch, Scikit-learn, Pandas, numpy, scipy, nltk, gensim, Azure

Work Experience

MindBeacon Software Inc.

Toronto, ON, Canada

Data Scientist

Jan 2019 - Apr 2019

- Implemented **NLP** techniques such as NER, Stemming, TF-IDF and word embeddings to preprocess and vectorize text data.
- Implemented **Clustering** algorithms (K-Means with latent semantic analysis and Gaussian Mixture Models) using **Scikit-learn** in order to retrieve information from text and detect topics.
- Developed a QnA bot using **Azure** and **Node.js** which automates response to over 20% of client's emails accurately.
- Used **PyTorch** to implement a **Sequence Model** with **Attention Mechanism** and **LSTM cells** to suggest responses to client emails which automates another 30% of the emails.

PerkinElmer, Innovation Outpost

Kitchener, ON, Canada

Software Developer(ML Stream)

May 2018 - Aug 2018

- Developed a **Deep Neural Network** to automate predicting clinical outcomes and survival analysis from large scale cancer genomic profiles using **TensorFlow**.
- Implemented **multi GPU processing** with cross validation for hyperparameter optimization and training, which reduced the run time **60 fold** from the original implementation.

University of Waterloo, Department of Statistics

Waterloo, ON, Canada

Part-Time Research Assistant

Jan 2018 - Apr 2018

- Researched **Deep Learning** techniques for **Farsi Language Context Resolution** in chat-bots.
- Applied **Named-Entity Recognition** and **Part-Of-Speech tagging** on Farsi corpora using **nltk**.
- Implemented **CNN** and **seq2seq** models using **numpy** and **TensorFlow**.

Projects

doodle-ai

Apr. 2019 - PRESENT

- doodle-ai is an implementation of *NST algorithm* which uses **DNNs** to compose one image in the style of another image.

Aurora

Jan. 2018 - May. 2018

- Aurora is an **iOS** app developed using **Swift**, **Core ML**, and **Azure Computer Vision API** which integrates voice recognition and computer vision to describe surroundings, recognize faces, read text and take notes for the visually impaired.

Certificates

Neural Networks and Deep Learning by deeplearning.ai on Coursera *March 2019*

Convolutional Neural Networks by deeplearning.ai on Coursera *May 2019*

Education

University of Waterloo

Excellent Standing

Honours Bachelor of Computer Science (BCS)

Sep. 2016 - Exp. Apr. 2021

- Founder and the President of the Side Project Club.