Shayan Liaghat

shayanliaghat@gmail.com | Hamilton, ON, Canada | 289-527-5429

Personal Website: https://bit.ly/3oFh9Pn | **LinkedIn:** https://bit.ly/366s5ze | **GitHub:** https://bit.ly/3kQlfCl | **Medium:** https://bit.ly/306X0rq

Summary

· Data Scientist with +4 years' experience in engineering, data analytics, modeling, and building end-to-end machine learning web applications.

Technical Skills

· **Languages:** Python (Pandas, NumPy, SciKit-Learn, Keras, TensorFlow, PyTorch, SpaCy, NLTK, Seaborn, Plotly, Matplotlib), SQL (PostgreSQL, MySQL), Unix Shell Scripting.
· **Tools:** Git, API's, Flask, Django, AWS (S3, EC2, SageMaker, RDS, Elastic Beanstalk, Lambda, Elasticsearch, CloudWatch), Heroku, Docker, Kubernetes, Tableau, Jupyter Notebook, Google Colab, VS Code, pgAdmin, Jira.
· **Skills:** Exploratory Data Analysis, Data Wrangling, Data Cleaning, Data Visualization, Feature Engineering, Feature Selection, Model Testing/Validation, Load Balancing, Deep Learning, NLP, Transformers and BERT, Recommender systems, Web Scraping, Version Control, Object Oriented Programming.

Professional Experience

NLP Data Scientist - Branchy (contract) **-** Smart E-commerce Service Analyzer — August 2020 - Present
· Developing a full-stack e-commerce web application that can save the store owner's costs and increase their revenue. [https://branchy.ca/]
· Collaborating with a Senior Data Scientist in an Agile environment to push services into deployment using Django, Docker, and Elastic Beanstalk.
· Implementing Sentiment Analysis, NER using SpaCy, Topic Modeling using LDA, Keywords & Trend Identification, and Action Item Summarization.
· Implementing deep learning models for Text Classification including Universal Sentence Encoder and BERT.

Lead Design Engineer - National Steel Car Limited (NSC), Hamilton, ON. — April 2018 - Present
· Built an automation pipeline for inter-departmental data access/analysis that saved 10 hours of engineering time per week.
· Generating technical and analytical reports to fully meet customer expectations.
· Work and communicate with other departments such as Marketing, Statistical Engineering, and Manufacturing.

Research Assistant - Center for Advanced Micro Electro Fluidics (CAMEF), McMaster University, Hamilton, ON. — May 2015 - Feb 2018
· Developed a biomedical device for cell detection and performed A/B testing that ultimately increased the detection accuracy by 15%.

Teaching Assistant - Mechanical Engineering Department, McMaster University, Hamilton, ON. — Sep 2015 - Dec 2017
· Developed presentation skills, teaching, and time management abilities while running technical tutorials for a large group of people.

Projects

Tweet Detective
· An end-to-end web application using Flask, Docker, and Elastic Beanstalk by scraping tweets and providing in-depth insights about specific businesses that could save the business owners hours of tweets reading and analyses. [http://tweetdetective.eba-phmcemwv.us-east-2.elasticbeanstalk.com]

Telco Customer Churn Prediction
· Implemented data augmentation techniques such as Borderline-SMOTE and ADASYN to work with imbalanced target variable, and used Grid Search for hyperparameter tuning of the selected models that resulted in 11% increase in comparison to the base ROC-AUC score.

Predicting Red Hat Business Value and Classifying Customer Potential
· Created a classification algorithm to predict the potential business value of different customers, achieving an error rate ~5%.

House Prices: Advanced Regression Techniques
· Created a regression algorithm to predict the sale price of houses in Ames, Iowa. The challenge was dealing with 79 variables including 43 categorical variables, and use PCA for dimensionality reduction. Feature engineering to build higher performance models & fine tuning the hyper parameters.

Professional Development

Python for Data Science and Machine Learning Bootcamp, on Udemy
· Applied Machine learning algorithms using SciKit-Learn library (Linear and Logistic Regression, SVM, K-Means Clustering, Random Forest, Decision Trees, XGBClassifier, Neural Networks). Implemented neural network models using Keras and TensorFlow using AWS EC2 instance. Familiar with Apache Spark, Hadoop for Big Data Analysis, and Optimization Techniques (Stochastic Gradient Descent).

The Complete SQL Bootcamp, on Udemy
· Used complex SQL queries to manipulate and analyze various databases.

NLP - Natural Language Processing with Python, on Udemy
· Worked with text and PDF files with Python, Regular Expressions, Text Classification, Analyzed Yelp restaurant review with Spacy for tokenization, parsing, NER and Lemmatization. Visualizing POS and NER with Spacy, Topic Modelling, Sentiment Analysis with NLTK's VADER module.

Deploying Scalable Machine Learning for Data Science, on LinkedIn
· Architecture design patterns for scalable systems, Machine learning models as services, Containerizing models, Kubernetes for container orchestration.

Education

M.A.Sc. Mechanical Engineering - McMaster University, Hamilton, Ontario, Canada. — May 2015 - Dec 2017
B.Sc. Aerospace Engineering - Sharif University of Technology, Tehran, Iran. — Sep 2009 - June 2014

Honors & Awards

· Recipient of full scholarship for M.A.Sc. and B.Sc.
· Recipient of International Excellence Award (IEA) (2016 & 2017).