MONA FADAVIARDAKANI

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SUMMARY

I'm a well-rounded computer scientist with strengths in data science and background in software engineering. I am passionate about delivering valuable products and actionable solutions through data and advanced data-driven methods for challenging business problems.

EXPERIENCE

Data Scientist

TD Bank

Jan. 2021-Present | Toronto, Canada

- Developed a dynamic engagement score to cluster valuable customers based on their historical digital and in person activities.
- Developed a content-based recommendation system to help customers better invest.
- Developed an analysis on DIAM/HVC clients with respect to their location and behaviour, and complied a list of potential books that should be assigned to new relationship managers.

Data Scientist and Engineering Intern

HSBC Bank

Jun. 2020- Aug. 2020 | Toronto, Canada

- Developed a deep learning model to parse addresses of customers from multiple countries with different languages and address formatting.
- Worked with Google Cloud Platform to create batch processing pipelines scalable to 39 GB free-form addresses data.
- Partnered with the data science team to develop and deploy the production code in SparkNLP and PySpark to predict the address fields.

Research Assistant

Sharif University of Technology

Sep. 2013- Nov. 2015 | Tehran, Iran

- A Model-Driven Approach for Developing Adaptive Web Systems: Analyzing system engineering requirements, planning, designing, and developing software with modeling languages (Published paper is available here)

PROJECTS

- Dance Motion Transfer: transferring motions between individuals by extracting poses from source subjects and applying the learned poses to appearance mapping of a target subject using PyTorch. (Report is available here)
- Food Recipe Retrieval: retrieving a food recipe from a collection of test recipes, given a food image and its ingredients using PyTorch. (Report is available here)
- Domain-Independent Text Segmentation: design and development of a deep learning model for identifying segment boundaries in textual documents using Keras/ tensorflow. (Report is available here)
- Music Genre Classification: design and development of parallel recurrent and convectional neural networks for classifying different music genres using Keras/ tensorflow. (Report is available here)
- A survey on deep learning based methods for person re-identification.
- Visualizing Clinical Data of Patients at the Child and Adolescent Psychiatric Emergency Unit. Accepted by the Canadian Psychiatric Association conference. (Proposal is available here.)

EDUCATION

M.Sc., Computer Science

The University of British Columbia, Department of Computer Science, Vancouver, Canada

Sep. 2018 – Dec 2020 (expected)

M.Sc., Software Engineering

Sharif University of Technology, Department of Computer Engineering, Tehran, Iran

Sep. 2013 – Nov. 2015

B.Sc., Software Engineering

K. N. Toosi University of Technology, Department of Computer Engineering, Tehran, Iran

Sep. 2009 – Aug. 2013

TECHNICAL SKILLS

- Python/ ML Packages

Tensorflow/Keras | PyTorch | PySpark | Spark NLP | NLTK | spaCy | OpenCV | PIL | Scikit-learn | Pandas | Numpy | SciPy | Matplotlib | Plotly | librosa

- Development

Java | Js | C++ | PHP | HTML/CSS | SQL | Spark SQL

- Tools

Google Cloud Platform | AWS | Tableau | PostgreSQL/MySQL | PowerBI | Git

CERTIFICATES/COURSES

- HSBC - Data Science Engineering & Transformation Services from AMT Training (link)
- Edureka Apache Spark Training Certificate

- Computer Vision (Teaching Assistant(TA))
- Relational Databases (TA)
- Patterns in Software Engineering (TA)
- Software Development Methodologies (TA)
- Information Visualization
- Multimodal Learning with Vision, Language & Sound
- Deep Learning Models for Computer Graphics and Computer Vision
- Machine Learning and Signal Processing
- Advanced Algorithm Design and Analysis