Nasim Samei . Jarvis Consulting

I received my Ph.D. in computer science from the University of Western Ontario. After graduation, I spent a year in Austria as a postdoc researcher mainly focusing on designing efficient algorithms for optimization problems. After my postdoc, I realized I was interested in engaging myself in a more practical environment. I am eager to use my strong problem-solving potential and creativity to solve real-life problems. I think a scientific mindset is a great asset that can assist me in writing meaningful programs. Before programming, you need to have a clear picture of what the problem is and what the program suppose to do. Next, we have to determine appropriate data structures and the number of entities involved. During my Ph.D. I have worked on a data science-computer vision project called pedestrian detection in which I have learned how to extract meaningful features from data for classification. In addition, in my post-doc research project, I learned to work with neural networks. I have joined Jarvis Consulting Company as a Data Engineer and currently working on Python/SQL data analytics project.

Skills

Proficient: Python, Numpy, Pandas, Matplotlib, Java, Linux/Bash, RDBMS/SQL, Agile/Scrum, Git

Competent: C++, JaveScript, HTML, Matlab, Scikit-learn, Computer Vision

Familiar: Deep Learning, Pyspark, Seaborn, Hadoop, R

Jarvis Projects

Project source code: https://github.com/jarviscanada/jarvis_data_eng_NasimSamei

Cluster Monitor [GitHub]: The goal of this project is to monitor each Linux nodes usage statistics within a Linux cluster. The project includes a series of bash scripts to create and start a PSQL instance within a Docker container. Subsequently, by using crontab it automatically collects usage statistics and inserts them into a DB called host_agent in the Docker container every minute

Python Data Analytics [GitHub]: The goal of this project is to assist a retail company to make better business decisions using advanced data analytics technologies. In this project, the retail data is loaded into a PSQL DB which could be considered as a Dataware house used for data analyses. Next, analyses are performed using python in Jyputer Notebook. Especially, pandas library for storing (using DataFrames) and manipulating data. In addition, Matplotlib is used for plotting.

Highlighted Projects

Data Science Course Project Titled Pedestrian Detection: In this project, I have examined different features such as global histogram, local histogram, SIFT and HoG for detecting a pedestrian in an image and then for classification I have trained different classifiers such as Knn and linear-SVM and Kernel-SVM. The goal of this project was to suggest a robust feature with an appropriate classifier.

Professional Experiences

Data Engineer, Jarvis (2022-present): I am working on a series of projects as a data engineer to master my knowledge and technical skills in the domain of data engineering. The technologies involved are Big Data, Python, Hadoop, Bash, and SQL.

Postdoctoral Researcher, IST Austria (2020): The project was a bridge between optimization and machine learning. I have developed a program that learns a submodular function, max cut problem, from data by training a neural network using a technique called combinatorial black-box solver. The neural network model I used was the RBF Kernel of a Project Matrix. Also, I used a greedy algorithm to solve the max cut problem. Technologies used are Pytorch, Python, and Gurobi Optimizer.

Education

University of Western Ontario (2014-2019), Doctorate of Computer Science, Computer Science

University of Western Ontario (2011-2013), Master of Computer Science, Computer Science

Sharif University of Technology (2005-2010), Bachelor of Computer Science, Computer Science

Miscellaneous

- I am a member of the Toastmasters International Club improving my communication and leadership skills
- I was a member of the Badminton Club during my grad studies at Western University
- Volunteer, Vice President of Educatoin at Toasmaster's Interntional