Hojjat Rakhshani

France, Lille +33771111368

Gmail LinkedIn Github Publications

Skills

Data Science: Big data pipeline (cleansing, wrangling, visualization, modeling, interpretation), statistics, optimization, AutoML, time series, A/B testing, Scrum fundamentals

Programming Languages: Python (Pandas, scikit-learn, pytest, Tensorflow, PyTorch, SciPy, NLTK, Gensim), SQL, R

Cloud Machine Learning: AWS (SageMaker, ECR, EMR, S3, RedShift), PySpark, DataBricks, Airflow

Professional Experience

Decathlon **May 2021–Present**
Data Scientist *Lille, France*

- Developed assortment optimization solutions that generated over 80 million euros in total sales and reduced stock costs for physical stores.
- Supported 4+ AI teams by providing semantically rich embedding for product descriptions, visual data, and user product behavior using BERT, deep learning, and node2vec graph approaches.
- Built a 1-year forecasting model on Amazon SageMaker DeepAR to predict turnover for each store and product.
- Presented XGBoost regression to analyze the impact of Covid data on store forecast models.
- Supervised team in analyzing needs, defining target stack, and streamlining AI solutions on SageMaker, DataBricks, and Airflow.

University of Upper Alsace **July 2020–April 2021**
Research Scientists *Mulhouse, France*

- Proposed an AutoML pipeline that identifies links between scientific articles, resulting in a classifier with 90% accuracy. Published in IEEE WCCI 2020 proceedings.
- Conducted neural architecture search and trained deep residual networks for time series data, achieving state-of-the-art accuracy compared to the HIVE-COTE model. Results were published in IJCNN 2020 based on experiments conducted on 85 instances.
- Examined a network interdiction multi-depot vehicle routing model.

University of Upper Alsace **May 2017–June 2020**
PhD Research Assistant *Mulhouse, France*

- Proposed a novel optimization technique based on transfer and ensemble learning to reduce the required computational resources by storing knowledge gained while solving optimization problems to a different but related one.
- Applied metaheuristics on Two-Stream Inflated 3D architecture model, pre-trained on the ImageNet and the Kinetics source datasets, to optimize crowd movements prediction on the Crowd-11 target dataset.
- Formulated a multi-objective framework for automatic configuration of machine learning models.

Education

- PhD in Computer Science, University of Upper Alsace 2017–2020
- Master of Computer Science, University of Sistan and Baluchestan 2013–2016
- Bachelor of Computer Science, University of Sistan and Baluchestan 2009–2013

Honors and Awards

- 100% PhD scholarship for research and innovation 2017–2020
- Outstanding dissertation award, University of Strasbourg 2020
- First prize in CG:SHOP Optimization Challenged, Challenge, Oregon State 2020
- Outstanding master's student award 2016

Langues

English: Fluent, **French** : Intermediate, **Persian** : Native