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Alireza Hosseini

Data Scientist

Results-oriented data scientist with a robust backend development foundation. Proficient in extracting actionable insights from complex datasets, adept at designing and implementing scalable machine learning algorithms to drive data-driven decision-making.

Experience

Data Scientist

Nestlé Part-time, Remote

July 2022 - March 2024

Qazvin, Iran

- Designed and implemented predictive models for assessing material quality (milk, wheat) from various suppliers, leveraging machine learning to enhance accuracy and reduce dependency on costly manual inspections and lab experiments in the supply chain.
- Developed and deployed multiple novelty detection systems within the production line utilizing YOLO for real-time object detection and Variational Autoencoders (VAEs) to identify anomalies, leading to improved product quality and operational efficiency.
- Engineered and launched a face verification system for enhanced factory lab security. This system utilized YOLO for real-time face detection, VGGFace for accurate face verification, and a transformer-based anti-spoofing network to mitigate presentation attacks, significantly strengthening security measures and access control protocols.

Data Scientist

Bookapo Full-time

February 2020 - June 2022

Tehran, Iran

- Engineered a comprehensive approach resulting in a 100% surge in an e-book platform user base to 400,000 and a doubled renewal rate, through design of a marketing SDK based on analyzing and efficient clustering user behavior history, and successful implementation of marketing campaigns.
- Resolved a team bottleneck by developing an auto SQL query generator by prompt engineering LLMs, automating complex queries for the marketing team, enhancing productivity.
- Innovated and implemented a scalable recommender system utilizing collaborative filtering and clustering algorithms. Resulted in a 10% increase in renewal rates by providing personalized book recommendations based on user engagement patterns.
- Pioneered the development of a graph-based keyphrase extractor system, revolutionizing content organization by generating robust tags for books and articles, enhancing database organization and information retrieval processes.
- Boosted user win-back rate by 10% through crafting a semi-supervised discount generator architecture, leveraging deep insights from user engagement patterns and purchase history analysis.

Lead Software Engineer

Bookapo Full-time

February 2019 - February 2020

Tehran, Iran

- Spearheaded a backend development team to achieve a 20% increase in user conversion rate, implementing development initiatives that blended technical innovation and user-centric solutions.
- Achieved to a 97% non-crashed users by optimizing application memory usage, reducing it by 80% through meticulous platform media size optimizing.
- Enhanced server maintainability by introducing a novel RESTful API (DRF) and a revamped MySQL database, contributing to streamlined operations and improved efficiency.
- Overcame challenges posed by international sanctions to reach 100,000 iOS users by successfully addressing issues and navigating the complexities of App Store publishing.

Education

Bachelor of Science in Computer Engineering with AI Concentration

Iran University of Science and Technology Department of Computer Engineering

September 2014 - February 2020

Tehran, Iran

Graph-based keyphrase extraction for Persian text under the supervision of Dr. Behrouz Minaei

Skills

Programming Languages

Python Bash

Visualization

Matplotlib TensorBoard nxviz

Plotly

Data Analysis and Handling

NumPy SciPy pandas

NetworkX

Machine Learning

Scikit-Learn Keras KerasTuner

TensorFlow TensorFlow Serving

Transformers Gymnasium

NLP

NLTK Hazm

Testing

pytest

Documentation

Sphinx drf-yasg

Other Frameworks

Django REST framework

Databases

SQL Redis

Cloud AI Platforms

Google Vertex AI

Amazon SageMaker

Operating Systems

macOS Linux

Tools

Visual Studio Code PyCharm

Git Docker MySQL Workbench