Oussama ABOUZAID

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Moroccan, born 22.08.1995 | Holds work B permit until 09.2023

Education

M.Sc. in Data Science	**09.2017 - 02.2019**

EPFL – Swiss Federal Institute of Technology, Lausanne | GPA 5.03/6 | Minor in Financial Engineering

B.Sc. in Communication Systems	**09.2014 - 05.2017**

EPFL – Swiss Federal Institute of Technology, Lausanne

University of Illinois at Urbana-Champaign: International Exchange program - Computer Science	**08.2016 - 05.2017**

Work Experience

Crédit Suisse, Lausanne   **06.2020 - present**
Data Scientist - Global Information Barrier Surveillance Team
- Developed models to prevent insider dealing and money laundering across multiple countries within EMEA, APAC and the US.
- Create and maintain a dashboard widely used by key stakeholders to visualise the trading activity and flag suspicious clients. Decreased the client investigation time by more than half.

Electronic Arts, Geneva   **09.2019 - 03.2020**
Data Science Intern - Marketing Analytics Team
- Master thesis supervised by EPFL Pr. Rüdiger Urbanke.
- Improve a promotion forecasting model and implement a new discount recommender "Discountify" for various EA franchises.
- Implemented a paper using a novel machine learning model to forecasting promotion uplifts (Regression-Enhanced Random Forest).
- Created a dashboard to visualise the recommender system using R Shiny, and set up scheduled deployment using Jenkins.
- Explored various sources of information (internal player data, survey results, research data, industry sources, sales data) and combined them to gain insights, supported decision-making processes and informed future strategy.
- Communicated and presented findings to key stakeholders on a bi-weekly basis.

Swisscom, Bern   **07.2018 - 01.2019**
Data Science Intern - Infrastructure Analytics (INI-DNA-INF), Wireless Analytics Team (WAT)
- Processed and analyzed large amounts of daily communications data and built tools to locate cell coverage gaps.
- Developed a big data pipeline in the wireless analytics domain using Hadoop and Spark for parallel computing, indexing record using ElasticSearch, and leveraging Prometheus for log alerting.
- Provided customers with a self-service analytics dashboards to visualise the coverage in Switzerland (Tableau).
- Performed ad-hoc analysis for other teams, e.g. competitor analysis, churn analysis, etc.

Personal and academic Projects

Recommender System (Matrix factorization, Python, Scikit-Learn) Built a Netflix-based recommender system that predicts user ratings for movies using collaborative filtering and matrix factorization.

Emotion dialog management system (NLTK, Google Dialogflow, requests, Flask)
Built an NLP-based chatbot for customer beverage ordering, using sentiment analysis to express emotions.

Melody generation (Keras, numpy): Implemented an artificial neural network using LSTM for original melody generation, based on past classical scores data, consisting of notes (pitch) and silences (tick).

Stochastic Route Prediction (pyspark): Built a predictive model of public transport delay in Switzerland, using 1 year historical data from SBB (Swiss railways) by fitting stochastic models for delays. (Presentation)

Relevant Coursework

Machine Learning - Data Analysis - Statistics - Algorithms - Computer Architecture - Signal Processing - Computer Security - Artificial Neural Networks - Statistics for Data Science - Corporate Finance - Financial Econometrics - Investments

Software Stack

Python, SQL, R, R Shiny, pyspark, Tensorflow, Keras, Prometheus, Tableau, UNIX, Bash scripting, Git, Tensorflow, Keras, Flask, Tableau

Languages

English (fluent), French (native), Arabic (native)