

Oussama ABOUZAIID

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Born 22.08.1995



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

- Improved models to prevent insider dealing and money laundering across multiple countries within EMEA, APAC and the US.
- Extended the client monitoring to the Private Banking business, and got positive feedback from Business teams.
- Created and maintained a dashboard widely used by key stakeholders to visualise the trading activity and flag suspicious clients, which decreased the client investigation time by more than half. Received positive feedback from Senior Management.

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, Tableau, UNIX, Bash scripting, Git, Tensorflow, Keras, Flask

Languages

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