Ali FRADI
Data scientist | Industrial engineer

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💼 JOB EXPERIENCE

February 2020 – April 2021

R&D Data Scientist, AXE FINANCE, Tunis, Tunisia
> Used attention mechanism to answer different problems linked to NLP projects listed below.
> Built models to summarize financial sentiment, extract topics, define topic-document DNA and detect named entities in in textual data.
> Developed a document recommendation engine to search for pertinent news articles about a specific bank's client. The recommendation engine is based on topic models and semantic similarity.
> Contributed to static scorecard modeling for retail clients of UIB-Société Générale bank.
> Developed versions of a framework that automates data processing and major calculations to build a scorecard model. The framework considers exporting models as PMML format.
> Initiation of adopting CRISP-DM process to manage credit scoring projects.
> Functionized all modules into Plumber APIs that were consumed into shiny dashboard allowing the user to search and speed read of news articles.

NLP | Tidytext | Shiny | features selection | transformers | features discretization | text sentiment analysis | topic modeling | LDA | Kmeans

September 2019 – April 2019

Graduation internship : Data Analyst, MONSANTO BAYER, Peyrehorade, FRANCE
> Adopted CRISP-DM approach designed for industries to achieve the project.
> Understanding of the problem and the data : diagnosis, exploration of the data and their sources.
> Data preparation : cleaning, structure processing and missings imputation.
> Data management :
-development of dashboards : automate calculations and reporting, boost generation of EMEA reports.
- fit to Scrum agile methodology : iterative production of interfaces and maintenance.
- definition of the indicators and the graphic charts used to summarize the data of the problem.
- enable tracking of calculations along the process and export of generated tables.
> Modeling : prediction of sterility class of corn plants (hypothesis and data driven approach) to optimize the costs of detasseling plants and preserve the quality of the product.
> Evaluation and Deployment : acceptable model with an accuracy of 86% .

Keras | R/Shiny | Rmarkdown | Apache Spark | Scrum Agile | ACM | ACP | decision tree | logistic regression | Neural network | SVM | cluster analysis | segmentation

July 2018 – September 2018

Engineer internship, DATA EXPERT, Manzeh 6, TUNISIA
Development, in collaboration with customers, of Shiny applications, test and validation of the application Sankey graph on two iterations and that of ANOVA since the first test.
> Observing fans' interactions on Facebook radio pages in Tunisia to advertising posts through a customizable Sankey graph generated from the input data.
> Analysis of the effect and interaction between factors defined on the qualities of olive oil through automated statistical tests and ANOVA.

Waterfall model | R/Shiny | Anova | data visualization | Homoscedacity | normality | Tukey and Bonferroni tests

June 2017 – July 2017

Summer internship, VIVO ENERGY-SHELL, Bardo, TUNISIA
The mission aimed to increase sales of Shell lubricants in stations during refueling time.
> Benchmarking and classification of necessary products.
> feasibility study and budget estimate for the realization of the project.

Active selling | affinity diagram | Pareto diagram | Ishikawa

☰ CERTIFICATIONS : DATACAMP
☰ R

> Anomaly Detection with R
> Dealing with missing data in R
> Exploratory Data Analysis with R

- › Fundamentals of Bayesian Data Analysis in R
- › Introduction to spark in R
- › Working with web data in R
- › Feature engineering in R

⊟ PYTHON

- › Data Scientist with Python track
- › Deep Learning in Python
- › Supply Chain Analytics in Python

⊟ SQL

- › Introduction to SQL for Data Science

🎓 ACADEMIC POJECTS

2018-2019	BPMN modeling and process optimization of an industrial enterprise using the DMAIC and Lean Six-Sigma approach
2018-2019	Credit risk management : classification of a bank's customers through their scores and probabilities of default to predict their financial solvency using the logistics model implemented with VBA.
2017-2018	PCA analysis of the basic factors of competitiveness between top 20 economies.
2018-2019	Decision support and investment choice using Machine Learning : profit prediction, estimation of investment costs, logistic classification, feature mapping, Ridge regularization, data normalization, fitting problems and minimization of cost function.
2017-2018	Final year project 2 : Initiation for the implementation of standard ISO 9001 at the industrial engineering department at ENIT : Establishment of QMS through Alfresco as Document Management System tool. This project is supported by the clause 7 of the ISO standard : Support.
2016-2017	Final year project 1 : Knowledge Management dimensions and its implementation to generate an intellectual capital to an organization for better performance.

🎓 EDUCATION

2021-	**Master degree in industrial engineering**, Ecole Polytechnique de Montréal
2016-2019	**Industrial Engineering**, National School of Engineers in Tunis (ENIT) : Banking Finance and Machine Learning specialization.
2013-2016	**University of El Manar (IPEIEM)**, Technology preparatory competitive exam for the entry to schools of engineers. Rank:25/1400.

⊟ LANGUAGES

- › French : TCF C1
- › English : TOEIC 810
- › German : notions

⊟ COMMUNITY LIFE

- › IAESTE : Former junior member
- › Industrial Engineering Club : Former training manager
- › L2M : Former Lean Management trainer

</> SKILLS AND MAIN KNOWLEDGE

Programming	Java , C, R, Python , Matlab , VBA
Databases	Oracle Database, MySQL, PowerAMC, Access
OS	Windows , Linux
Modeling	UML, Merise ,BPMN, ARENA
Industrial optimization	Operations Management, heuristics for scheduling, Supply Chain Management
Finance	Financial Maths

⊟ INTERESTS

Sports
Games of strategy
Arab calligraphy