

SUMMARY

- Earned 2 years of experience in applied machine learning to different business areas, from manufacturing and mining industry to finance/banking and later in medicine. Proficient in building models with R and Python.

EDUCATION

- **University of North Dakota** Grand Forks ND, USA
M.Sc of Electrical Engineering & Computer science - minor in Bioinformatics August 2018 – May 2020
- **École Mohammedia des Ingénieurs** Morocco
M.Sc in Industrial Engineering - Manufacturing & Supply Chain Management Sept. 2014 – August 2017

LANGUAGES

- **PROGRAMMING:** Python,R, C/C++, CUDA , SQL, Java **Languages:** English, French, Arabic

EXPERIENCE (SELECTED)

- **Bioinformatics Graduate Researcher - Machine Learning (ML)** University of North Dakota, USA
Biomedical Engineering Research Complex August 2018 - Present
 - **ECG-Biometrics Security System:** Designing ML Approach to authenticate individuals based on heartbeats
 - **Churn Prediction in Clinical Context:** Design of machine learning model to detect patients with blood poisoning based on clinical data 6 hours earlier than a doctor. [Our results](#) are published in CinC 2019 Conference**Technologies:** Python, GitHub, Docker, Google Cloud, GPU Parallel computing, Linux
- **Data Scientist** Casablanca, Morocco
BMCE Bank Of Africa Group - SALAFIN Dec 2017 - June 2018
 - **Credit Default Risk:** Designed and deployed new machine learning system for Credit Default Risk and Credit Loss Evaluation. I accomplished performance of 80% for Credit Risk, and I achieved 90% for Credit Loss on some financial products and at least 70% on most of them. Resulted in cutting \$1.0M in financial credit losses
 - **Credit Fraud Detection:** Contributed to building an automated loan fraud detection system.**Technologies:** Auto-ML with H2O, Spark, R, Python, ETL programming, Shell scripting
- **Data Scientist - Co-op** Casablanca, Morocco
OCP Group SA Feb 2017 - June 2017
 - **Predictive Maintenance:** As a data scientist, I designed and deployed a new system to predict failures events of critical routing machines in the plant. Model performance achieved over 80%.[\[Thesis\]](#) [\[GitHub\]](#)
 - **Deployment :** Dashboard creation and design highlighting key performance indicators of maintenance solution (with R-shiny)**Technologies:** R, R-shiny, Data Visualization with R, ETL programming

RESEARCH PUBLICATIONS - FIRST AUTHOR

- **Peer-Reviewed Conference Paper:** Soufiane Chami, Kouyar Tavakolian , "Early Prediction of Sepsis from Clinical Data Using Single Light-GBM model". CinC 2019 , USA, Singapore [\[Abstract\]](#) [\[Full Paper\]](#)
- **Graduate Thesis:**"Machine Learning Decision-Making Tool for Predictive Maintenance". Soufiane Chami, Nizar El-Hachemi, June 2017, Ecole Mohammedia des ingénieurs , MED V University, Morocco. [\[Thesis\]](#)

AWARDS AND COMMUNITY SERVICES (SELECTED)

- **NSF Student Funding Award for IEOM Society:** Toronto, Canada, 2019
- **Google Scholarship - Sepsis Research:** San Francisco , 2019
- **Fulbright Scholarship:** Morocco , 2017
- **Graduate Student Award - Excellence in Entrepreneurship :** Johannesburg, South Africa , 2015