

## SUMMARY

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- 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

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- **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

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

## EXPERIENCE (SELECTED)

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- **Bioinformatics Graduate Researcher - Machine Learning (ML)** University of North Dakota, USA  
*Biomedical Engineering Research Complex* August 2018 - Present
  - **ECG-Biometrics Security System:** Designing a ML Approach to authenticate individuals based on heartbeats
  - **Churn Prediction in Clinical Context:** Served as the project lead. The mission is to detect patients with blood poisoning based on clinical data 6 hours earlier than a doctor. I published [our findings](#) 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 an new machine learning system for Credit Default Risk and Credit Loss Evaluation. I accomplished a 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%.[\[Thesis\]](#)
  - **Deployment:** I developed a web application to be available online (with R-shiny) and integrated with the original website of the predictive maintenance in the plant.**Technologies:** R, R-shiny, Data Visualization with R, ETL programming

## RESEARCH PUBLICATIONS - FIRST AUTHOR

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- **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)

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- **NSF Student Funding Award for IEOM Society:** Toronto, Canada, 2019
- **Google Scholarship - Sepsis Research:** San Francisco , 2019
- **Fulbright Scholarship:** Morocco , 2017
- **3rd World Champion ENACTUS:** Johannesburg, South Africa , 2015