

## SUMMARY

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Software engineer with mid-level experience in developing machine-learning-based software using R and Python. Successfully managed analytics projects in industry and academia from conception to production.

## EDUCATION

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- **University of North Dakota** Grand Forks ND, USA  
*M.Sc of Electrical Engineering & Computer science* August 2018 – Present
- **École Mohammedia des Ingénieurs** Morocco  
*B.Sc in Math & Physics - M.Sc in Industrial Engineering* Sept. 2012 – August 2017

## EXPERIENCE (SELECTED)

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- **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
  - **Energy Management:** Times series forecasting to estimation energy consumption per household.**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%.[\[Thesis\]](#) [\[GitHub\]](#)**Technologies:** R, R-shiny, Data Visualization with R, ETL programming

## PROGRAMMING SKILLS

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- **Languages:** Python, R, SQL, C/C++, CUDA , Java **Tools:** Google Cloud, Docker, AWS, Spark

## RESEARCH PUBLICATIONS - FIRST AUTHOR

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- **Peer-Reviewed Conference Paper:** Soufiane Chami, Kouyar Tavakolian , "Comparative study of Light-GBM and LSTM for Early Prediction of Sepsis from Clinical Data". 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 (SELECTED)

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