# CHAMI Soufiane
## Software engineer
### USA Fulbright Fellow

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Website
LinkedIn
Kaggle


## Summary


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

- **University of North Dakota** — Grand Forks ND, USA
  *M.Sc of Electrical Engineering & Computer science* — *August 2018 – May 2020*
- **École Mohammedia des Ingénieurs** — Morocco
  *B.Sc in Math & Physics - M.Sc in Industrial Engineering* — *Sept. 2012 – August 2017*

## Experience (selected)

- **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

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

## Research Publications - First Author

- **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)

- **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*