Mahmoud Albardan

PhD - Data scientist

32 ans, Lebanese/French citezenships
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Medium
 Github

▬▬▬ Summary

I am a Ph.D data scientist with 6 years experience (+ 3 years of PhD research) during which I worked on many projects in multiple domains (IOT, telecom, medical, automotive, retail, research). I have technical expertise in artificial intelligence and I am a certified professional machine learning engineer from Google Cloud.

▬▬▬ Experience

02/2022 – 07/2024 **Senior data scientist**, Orange, Paris, France.
- **Smart Capex**: Utilized AI algorithms to optimize Orange capex investments in Egypt, Morocco, and Ivory Coast
  - Analyzing mobile network data in collaboration with business teams to understand needs and meet specifications.
  - Building predictive models for data/voice traffic and congestion detection across 2G/3G/4G telecom sites.
  - Analyzing socio-economic data (population, GDP, etc.) to identify profitable locations for new telecom sites.
  - Developing customer churn models for sites.
  - Conducted economic analysis and valuation of model outputs
  - Implementing unit tests, end-to-end tests, and developed a CI/CD pipeline (GitLab) for data processing, model development, and evaluation.
  - Maintaining models in production

01/2021 – 08/2021 **Data scientist**, Institut Polytechnique de Paris (Télécom Paris), Paris, France.
- Analysis of motion sickness in vehicles (with Stellantis PSA)
  - Physiological signal processing
  - Building adapted algorithms for motion sickness detection based on physiological signals
  - Building prediction and scoring algorithms for scikness level of passengers inside the vehicles
  - CAN bus data processing (acceleration, velocity, ..)

01/2019 – 01/2021 **Data scientist**, Blue Radar, Niort, France.
- **FluxDataVision Project**: Pedestrian traffic analysis in cities and retails using WiFi sensors
  - Prediction of the traffic and outlier detection in the incoming data streams
  - Delivering statistical features to better understand the traffic i.e. pedestrian heatmaps
  - Building a pre - POC model that aims to detect, compare clients/pedestrian face images and estimates their morphological features in a closed environment via two cameras in order to deliver better insights about the corresponding traffic
  - Creation of a 150k samples database of face images labeled with morphological features
- **YouTakeCare Project**: Behavioral analysis of elderly people in their homes via localization using WiFi sensors
  - Multi-modal data analysis (wifi signals, statistical features,..), behavioral model creation and POC preparation
  - Implementation and evaluation of outlier detection techniques to identify behavioral anomalies
  - Increasing localization precision using data fusion and signal processing techniques
  - Technical communications (CIR, internal reports, ..)

10/2015 –10/2018 **PhD in machine learning**, CRIStAL Laboratory, Lille, France.
- Creation and implementation of new ensemble methods applied to classification within the probabilistic and the possibilistic frameworks.
- Teaching signal processing and automatic

02/2015 –07/2015 **Master's internship**, at Heudiasyc Laboratory, Compiègne, France.
- The aim of this internship is to study the human factor during the driving task of intelligent cars. We inspired from risque analysis methods in other industries (nuclear and railways) to create our model while taking into account may factors.

▬▬▬ Education

2015–2018 **PhD in Computer Science**, *University of Lille.*

2014–2015 **Master's degree**, *University of Technology of Compiègne*, Labex scholarship 8k€.

2010–2015 **Bachelor of engineering**, *Lebanese University*, Lebanon.

Skills

Languages Python, Scala, Spark, MySQL, NoSQL, PostgreSQL, Docker, Java, Databases, Git, CI/CD , bash, Linux, AWS, GCP, HTML

Publications and projects

Academic activities
- I teach and mentor students in universities (ENSUP, ESILV) in data science related materials (machine learning, signal processing, python coding, ..)

Publications
- Phd manuscript
- First publication
- Second publication