Esso-Ridah BLEZA
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**PhD in Computer Science
Specialty AI Science,
Statistician,
Mathematician**

My strengths

AI Science	**Expert** in the methodological development of AI algorithms according to strategic and commercial projects oriented towards solutions to real application problems.
ML Ops Engineering	**Amazon Web Service engineer** for conceptualizing and building efficient data processing pipelines by training, testing, and deploying high-quality models in production capable of operating at scale.
Research & innovation	**Researcher** in methodological and algorithmic development and innovation in the exploitation of asymmetric, zero-inflation and heavy-tail environmental data from real-time sensor networks. Risk prevention algorithms (vulnerability and pollen allergy) built for companies.
Teaching & Mentoring	**Assistant at the University** of TP in ML courses, **trainer and mentor** on academic machine learning projects of students of the master in statistics of the University of Rennes 1

My career paths

More than 6 years of experience in data science/machine learning/Python & R programming/statistics and probability.

Lify Air: Data Scientist
2020-2022

Offer a complete preventive solution for people with pollen allergies

Structuring new aerobiological data

Spatio-temporal data flows characterized by redundant variables and whose distributions are asymmetric (non-Gaussian) and with zero inflation.
- **Optical crosstalk:** a method to help filter data (breaks) in pollen measurements in the laboratory
- **Pollution filtering:** with an 88% success rate in the very first outdoor aerobiological data from a complex optical pollen sensor process.

Responsible for building ML algorithms

- **Pollen risk prediction model:** Implementation of pollen risk prediction models for 21 pollen species based on multi-source historical data with good spatial generalization.
- **Scientific contribution:** the work was presented at the EGC (Knowledge Extraction and Management) 2022 conference and a scientific article was published in the international journal Elsevier.

MLOps Engineering Manager

- End-to-end architecture and implementation on AWS of pollen prediction models developed for the LivePollen application.
- The pipeline automatically manages and processes real-time France weather data, which is integrated as functionality in the models.

Find out more about https://bleza.fr

Janasense: Data Scientist
2018-2020

Positioned in the field of home support for the elderly and vulnerable in autonomy and safety

Loaded Streaming Data Stream Compression

Compression of data streams in Stream: development of an algorithm for compressing data streams in Stream by dynamic propagation
based on a linear piecewise approximation and a minimum description length criterion.
Workshop: presentation of a presentation at the FDST day of 12/09/2019 at Telecom ParisTech on the theme "learning on data flows and time series"

Responsible for building ML algorithms

Automatic detection of human activities: development of machine learning and Deep Learning algorithms to automatically detect activities such as showering, meals etc. of people in their homes.

UP Group: Data Scientist
2017-2018

Data science mission for key account clients such as: Total France, Logis, Dalbe.

Large unstructured data from enterprise CRMs

- **Data manager:** creation and structuring of large volumes of enterprise data
- **Data mining:** reduction of dimensionality, automatic selection of characteristics, etc.

Responsible for building ML algorithms

- **Loyalty program:** development of recommendation and customer loyalty algorithms for key accounts such as TOTAL, LOGIS, etc. -
Data analysis tools: semi-automation of data analysis development as an application that can be used by non-statisticians.

Trainer

Organization of workshops: organization of several training courses and presentations for a better understanding of the customer on the summary indicators of statistics and Machine Learning.

Caisse d'Epargne Bretagne Pays de Loire: Statistician-Econometrician
2016 (defense M2)

Explain and predict the profitability of 420 bank branches within the Finance Performance Department

Statistician

- **Constitution of the dataset for the study:** Exploitation and quality control of the data by collecting data from different sources (meetings, interviews and company database), data mining, dimension reduction
- **Development and validation:** automatic classification (using machine learning algorithms) to explain and predict the profitability of bank branches in the Pays de la Loire region.

Econometrician

- **Restitution of results:** deployment and economic interpretation with business experts
- **Documentation:** report that served as an econometric decision support tool for finance managers
- **Presentation:** training in the use and understanding of decision support indicators.

IPRA (University of Pau): Statistician
2015 (defense M1)

Statistician

- Statistical study contributing to the research work of a PhD student in biochemistry
- Modelling of the probability of the presence of a phenomenon (LIGA) threatening the marine environment south of the Basque-Landes coast.
- Processing and quality control of large amounts of qualitative and quantitative time series data, probabilistic methods and advanced statistics.

General High School (TOGO): Mathematics Teacher
2011-2014

Teaching

- **Full teacher in second, first and terminal:** preparation of courses, practical work and evaluation, monitoring of the pedagogical progress of learners.
- **Personal and pedagogical development:** Afforestation of relational sense, ability to listen, rigor and organization, work in autonomy and team.

Extracurricular activity

- Organizer of the cultural week of the establishment
- High school drama club manager

My Technical Skills

AI Tools / Data Science / Big Data	Python (advanced), R, SQL, dynamoDB, Spark, Pyspark , Jupyter Notebooks, Numpy, Pandas, Scikit-learn, caret, Keras, Tensorflow Matplotlib, Seaborn, Plotly, Dash, Hadoop, spark, Map Reduce,NLP, etc.
Amazon Web Service	Lambdas, Stepfunctions, S3, Docker, EC2, and CloudWatch, SageMaker, etc.
Database	Creation and management of NoSQL & SQL databases: MySQL, Cassandra, MongoDB, DynamoDB, Postgres, etc.
Computer	Knowledge of Java, Django, PHP, HTML and CSS programming.

My training / diplomas

2019 – 2022: University of South Brittany	**Thesis mention Computer Science: at the** MathSTIC doctoral school in Mathematics and Computer Science at the IRISA (UBS) and IRMAR laboratories (University of Rennes1) **Title:** Machine learning methods for the analysis of environmental data from microsensors - applications in public health.
2015 – 2016: University of Rennes 1	**Master 2:** Statistics and Econometrics, Risk and Market Forecasting
2014 – 2015: University of Pau	**Master 1:** Stochastic and Computer Methods for Decision Making
2007 – 2011: University of Kara (TOGO)	**Bachelor's degree:** Mathematics and Applied Computer Science

My Languages / Communication

French	Current
English	Professional
Communication	Force of proposal; Organization and presentation of meetings; Ability to work in a team and in autonomy; Collaboration with data engineering teams; Coordination with sales teams.

My Interests

Football	**Indoor football player with colleagues and friends.**
Dance	Practice of African and Latin dances
Kitchen	Creation of cooking and pastry recipes
Sewing	Manufacture and donation of cloth masks during covid-19, creation and retouching of clothing
Music	Listening to variety music, RnB, Afro Trap, Latin, etc.
Journey	Discovery and openness to the world