

ABOUABDALLAH MOHAMED ANWAR

PHD in Applied Mathematics / Machine Learning Engineer (3 y/exp) / AWS Cloud Junior

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📍 Bordeaux, France
🌐 <https://mawro69.github.io/mycv>

PRÉSENTATION

Passionate and rigorous mathematician, with sharp analytical reasoning, excellent interpersonal skills and a keen interest in artificial intelligence, cloud, and programming. Having obtained my engineering degree in 2019 and a PhD in 2022 focusing on tensor algebra. Since then, I have held varied and complementary positions, including as a solution architect, data engineer and data scientist.

EDUCATION

Ph.D. in Applied Mathematics

Doctoral College of Bordeaux 
📅 10/2019 – 12/2022 📍 Bordeaux/Toulouse, France

Title: Tensor-Train Approach for Inference in Stochastic Block Models, Application to Biodiversity Characterization

Engineering Degree in Applied Mathematics and Modeling

Polytech'Lyon 
📅 09/2016 – 08/2019 📍 Lyon, France

Preparatory Classes

Lycée Paul Valéry
📅 09/2014 – 05/2016 📍 Paris, France

Certifications:

Earned: [AWS SAA](#) / [AWS ML](#)
In progress: [AWS Developer](#) / [Azure Fundamentals](#)

SKILLS

Programming Languages: Python, R, C++

Software and tools: Julia, Power BI and Git

Libraries: Pandas, Scikit-learn, Tensorflow, Keras, Pytorch, Pymongo, Boto3, Fastapi ...

Database : Mongodb, Dynamodb, Aurora,

Hobbies

Sports: Tennis 15/5 (formerly 15/1 eq 4.5

in us ranking) Writing Reading Traveling

LANGUAGES

French and Arabic
English (TOEIC 820)
Spanish



PROFESSIONAL EXPERIENCE

Data Consultant, EXPLEO

📅 October 2023- Now 📍 Merignac

- **Data science** : adding features based on prompt engineering for GenAI and exploring ML/DL use cases on ecological data (Python, Azure OpenAI),(Gaia Project)
- **Data engineering** : building a NoSQL database for two applications (Python, Azure CosmosDB, MongoDB). ETL operations for dataviz. (Gaia/Grace/Stay Fresh in Paris Project)

Cloud Data Scientist, Mangrove

📅 January 2023- September 2023 📍 Bordeaux

- **Internal projects**: Photo sharing software ([AWS cloudformation/S3/Dynamodb](#), [Python](#), [Git](#)) and predictive finance project ([AWS SAM/S3/Dynamodb](#), [Docker](#), [Python](#), [OpenBB](#))
- **Customer project**: Spreadsheet table recognition (Sagemaker, Python)

Ph.D. in Applied Mathematics

📅 October 2019 - September 2022 📍 Bordeaux and Toulouse

Title: Statistical learning for OTU (Operational Taxonomic Unit) identification and biodiversity characterization.

- Unsupervised classification for species recognition based on distances between DNA sequence pairs ([R](#) and [Git](#))
- Use of tensor algebra to enhance the stochastic block models algorithm ([Python](#), [Slurm](#), and [Git](#))

Internships:

📅 03/2019 – 09/2020 / 09/2017–01/2018

- **Final Year Internship**: OTU data clustering using SBM model (Keywords: statistical learning, data analysis) ([Git](#), [Python](#), and [R](#)) at the MIA unit of INRAE Toulouse ([report](#))
- **M2 Internship**: Estimation of population diffusion parameters in a heterogeneous landscape (Inferential statistics, data analysis, Optimization) ([Freefem++](#) and [R](#)) at the BIOSP unit of INRAE Avignon ([Report](#))

PUBLISHED ARTICLES AND PROJECTS

- **Evaluating the adequacy between morphological-based and molecular-based inventories at high taxonomic level** co-written with Nathalie Peyrard and Alain Franc (Molecular Ecology resources).
- **Computing SBM marginals with TT decomposition** co-written with Nathalie Peyrard, Alain Franc and Olivier Coulaud.(Hal INRIA)
- Thesis manuscript: [Tensor-Train approach for inference in stochastic block models, application to the biodiversity characterization](#).
Associated library: [TT-SBM-Py](#): Tensor Train for Stochastic Block Models