

Mariem Bouhadda

Statistics and Data Analysis Engineer

24 years old from Tunisia



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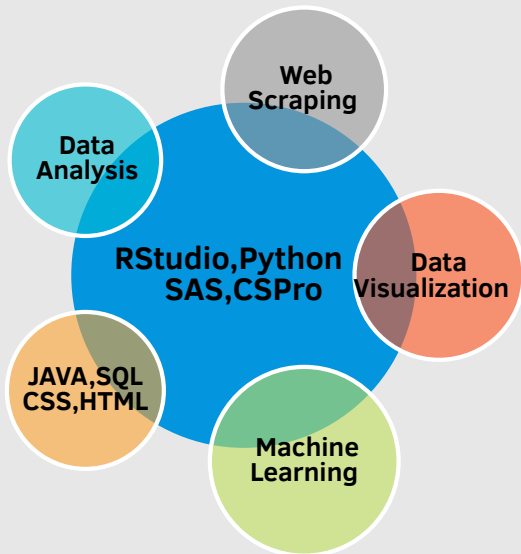


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Technical Skills



Career Objective

I am a Statistics and Data Analysis Engineer and a Master's student in Bioinformatics. I am aiming for a career of research in this field. Since I was an engineering student, I knew what I wanted and made sure that all my internships were related to bioinformatics which helped me gain statistical and biological knowledge and other skills from data analysis and visualization to building Machine Learning models using both R and Python.

Education

2019 - in progress **Master's in Bioinformatics : Information Processing and Complexity of the Living - National Engineers School of Tunis (ENIT)**

- Biology
- NGS Data Analysis
- Big Data analysis in Bioinformatics
- Machine learning : Methods and Applications in bioinformatics
- Modeling Population Dynamics
- Modelling biological evolution
- Complex Dynamical Systems
- Research Methodology
- Bibliographic search

2016 - 2019 **Higher School of Statistics and Data Analysis - Tunis (ESSAIT) Graduated with highest honors (Equivalent to a Master of Science degree)**

Main focus on a 3 axis curriculum :

- Theoretical and Applied Statistics
- Computer Science
- Economics and Finance

2014 - 2016 **Preparatory Institute for Engineering Studies of Tunis**

- Mathematical Physics (MP)

2010 - 2014 **Ibn Khouldoun Highest School**

- Bachelor's Degree in Mathematics With highest honors.

Internships

July-In progress **Laboratory of BioInformatics, bioMathematics and bioStatistics (BIMS), Institute Pasteur of Tunis**

2019

- RNA Sequencing Data Analysis.
- Learning about Molecular and Cancer biology.

February-Mai **Deep Learning : Breast cancer image classification** Fogits Solutions
2019

- Done image Data preprocessing.
- Developed a Convolutional Neural Network model that classifies benign and malignant tumors by 86 % accuracy using Histopathological breast cancer images.
- Improved the performance of the model using Hyperparameter tuning methods based on mathematical theories.
- Hosted the developed model on Web Server.
- Built a user friendly Web Application that uploads breast cancer microscopic images, classifies them into benign and malignant tumors and displays charts of classification results.
- Tools : Python, JavaScript, HTML and Flask Web Server.

Soft skills learned

- From Weight lifting
 - Consistency, dedication
 - The value of pain
 - Self discipline
- As a Responsible for communication in the "Stats Revolution Club"
 - Leadership
 - Teamwork
 - Effective Listening

Languages

- English
- French
- Arabic
- Spanish

"The only way to do great work is to love what you do."

Steve Jobs

July - August 2018 **Machine Learning : Binary Classification of Breast tumors** OpenWay

Created an RShiny Web application that :

- Visualizes univariate and bivariate Data Analysis.
- Classifies benign and malignant tumors according to numeric variables and compares different Machine Learning classification models like Neural Networks and Random Forest in terms of accuracy and ROC curves.

Link to the Shiny Application :

https://mariembouhadda.shinyapps.io/breastt_cancer_app/

Other Projects

Web Scraping and RShiny application

Created an RShiny Web application that :

- Built an RShiny Web application that scrapes Tunisian trade data:exports and imports by material, quantity and year based on the user's choice.
- Cleaned Data using R.

Stock Market Modeling and Forecasting

- Studied ARCH and GARCH models.
- Applied forecasting models to predict the variance of CAC 40 stock indices and compared the forecasts using multiple statistical tests.

Certifications

- Training course of : Self development and public speaking skills.
- TOEIC Listening and reading Test : 795 / 990.
- Voltaire Certificate: Measures the mastery level of writing in French. Got a Business Level.
- First Aid certificate from the Tunisian Red Crescent : LEVEL 1.