Ismahene MESBAH

PROFILE

France

https://www.linkedin.com/in/ismahene-m-753735150/

https://gitlab.com/ismahene_mesbah

HOBBIES

- ✓ Travel: France, Netherlands, Belgium, Italy.
- ✓ Sport: swimming, Yoga, equitation.
- ✓ Volunteer at *Solidarité educative* program: mathematics courses for teenagers.
- ✓ Hiking.

LANGUAGE SKILLS

French

English — *TOEIC: 825/990*

Arabic

Spanish

PROGRAMMING SKILLS

C++, SQL, JS, python, BASH, R, Galaxy, php, django, Bootstrap, jQuery, HTML, CSS

EDUCATION

2019 - 2021
Marseille, France

M.Sc. in Bioinformatics:
Software development and data analysis
Aix-Marseille University

2015 - 2019
Lyon, France

B.Sc. in Bioinformatics, Statistics and Modelling
Claude Bernard Lyon 1 University

EXPERIENCES

January – July 2021

Marseille, France

Laboratoire Adhésion Inflammation - INSERM U1006

Software development for Atomics Force Microscopy (AFM) based Single Molecule Force Spectroscopy (SMFS) data analysis

- Load force-distance curves from high-speed Atomic Force Microscopy (AFM) based Single Molecule Force Spectroscopy (SMFS) files.
- Data preprocessing.
- Detection of force peaks that correspond to the unfolding of the protein.
- Classification of significant and non-significant data.
- Build a user-friendly Graphical User Interface (GUI) in Python.

April – August 2020

Marseille, France

Laboratoire Adhésion Inflammation – INSERM U1006

Software development for Steered Molecular Dynamics (SMD) simulation data analysis

- Extract information from the SMD simulation output files.
- Plot the Force-Distance curves.
- Compute the extensions between the residues.
- Peak detection from force-distance curves.
- Refinement of peak detection using the extension vs time profile.
- Refolding detection from the extension vs time profile.
- Build a Graphical User Interface in Python.

March – June 2017

Lyon, France

Ecole Normale Supérieure de Lyon (ENSL)

Explore the Nucleosome Inhibitory Energy Barriers (NIEB) beyond the vertebrates

- Selection of eukaryotic genomes to study under specific criteria.
- Build a database of these genomes.
- Detect NIEBs using software packages developed in the laboratory.
- Analyze the distribution of the barriers along the genomes.