

# KARIM MEZHOU

I am Data Scientist and Associate Professor in Nuclear Science Center of Tunisia - Tunis. I am teaching Bioinformatics and Biostatistics to Master degrees in Biomedical. The courses are based on GNU/Linux environment and R programming language. I started wrangling Cancer genomics data and developing tools for Analysis, visualization and prediction. Today, I extended my skills to multiple data type for business solution, nuclear physics or Medical image processing. I am familiar with Python and the most known machine learning algorithms. Mainly I use R for EDA and Python for Prediction.



## EXPERIENCE

2018  
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Present

### National Center for Nuclear Sciences and Technologies Data Scientist

📍 Tunisia, Tunis

- Data cleaning, Processing, exploring, and visualization
- Train models and prediction
- Data auto-Reporting
- Dashboard, shiny, shinymobile
- Sparklyr & MLlib,
- RSQLite, MySQL, MSSQL
- TABLEAU
- Cloudera, Hive, Hadoop
- Dockerise R package
- Agility: Scrum, Kanban

2016  
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Present

### National Center for Nuclear Sciences and Technologies Associate Professor

📍 Tunisia, Tunis

- R programming Courses for Master degrees (Tunis, e-learning)
- Soft Structural Bioinformatics courses for Master Degree (Tunis, e-learning)
- Nuclear education network (e-learning, moodle)
- Medical images classification using Deep Learning
- Dosimetry data management and analysis

2015  
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Present

### National Center for Nuclear Sciences and Technologies Data Analyst

📍 Tunisia, Tunis

- Data analysis (Biology, health, Medicine, Pharma)
- R Programming, Shell, Regex, Shiny App
- Statistics: Pre-processing, Processing, & Data mining
- GNU/Linux & OSX environment
- Deep user of Bioinformatics tools (Proteomics, Chemoinformatics, Pharmacophore, Toxicology)

2009  
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2016

### National Center for Nuclear Sciences and Technologies Assistant Professor

📍 Tunisia, Tunis

- Teaching Bioinformatics Master Degree
- Research in Proteomics, Toxicology, & Mass Spectrometry

2004  
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2006

### Freelance Self-employed

Consultant in safety foods

📍 Paris, France

- Consultant in hygiene and food safety in collective catering and restaurant in Paris
- Hygiene good practice analysis, Hazard Analytic Critical Control point (HACCP)
- Trainer in Food Safety



## SELECTED PACKAGES

2020

### Orders and Stores web/mobile management

Mobile App: R/Docker

📍 github



## CONTACT INFO

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📞 +216 25-909-901

## SKILLS

Data Analysis  
Data Processing  
Data Viz  
GNU/Linux, OSX  
R Shiny, Python, Bash,  
Regex  
github, gitlab  
Agility: Scrum, Kanban

## LANGUAGE

English  
French  
Arabic

## CERTIFICATES

Coursera (Bioinformatics & Biostatistics)  
DataCamp (R)  
Dataquest (R)  
LinkedIn learning  
(Cloudera, Hadoop)  
Analytics Vidhya &  
HackerRank (Python)

2020	<ul style="list-style-type: none"> <li>● <b>COVID Tracker</b> RShiny Dashboard</li> </ul>	📍 gitlab
2019	<ul style="list-style-type: none"> <li>● <b>Business Analysis of Laptops</b> Rshiny Dashboard</li> </ul>	📍 gitlab
2017	<ul style="list-style-type: none"> <li>● <b>Radiant.dose</b> A shiny app for Dosimetry Data management Randiant.dose</li> </ul>	📍 github
2018	<ul style="list-style-type: none"> <li>● <b>PapSmear: Uterine Cervical test image classification using Deep learning</b> PapSmear</li> </ul>	📍 github
2016	<ul style="list-style-type: none"> <li>● <b>BioCancer is a Shiny App to explore interactively Multi-Assay of Cancer Genomic Data</b> bioCancer</li> </ul>	📍 Bioconductor
2015	<ul style="list-style-type: none"> <li>● <b>cancerR - A Graphical User Interface for accessing and modeling the Cancer Genomics Data of MSKCC</b> cancerR</li> </ul>	📍 Bioconductor



## EDUCATION

2009   2013	<ul style="list-style-type: none"> <li>● <b>Habilitation à Diriger des Recherches (HDR)</b> Faculté des Sciences de Tunis</li> </ul> <ul style="list-style-type: none"> <li>• Graphical identification of cancer-associated gene sub-networks based on small proteomics data sets.</li> <li>• Teaching</li> <li>• Structural Bioinformatics (3D protein structure modeling, Docking, interactomics)</li> <li>• GNU/Linux for Biology (Shell, regex)</li> <li>• Introduction to R in Biology (How to choice of statistic tests, graphics)</li> </ul>	📍 Tunisia, Tunis
2004   2007	<ul style="list-style-type: none"> <li>● <b>PhD in Proteomics and Bioinformatics</b> Museum National d'Histoire Naturelle</li> </ul> <ul style="list-style-type: none"> <li>• Proteomic and phosphoproteomic analysis of cellular responses in medaka fish (<i>Oryzias latipes</i>) following oral gavage with microcystin-LR</li> <li>• Animal assay: Mouse, Fish, Rat</li> <li>• Cellular assay: CHOK1</li> <li>• Electrophoresis, mass spectrometry, imaging, Western blot</li> </ul>	📍 France, Paris
2003   2004	<ul style="list-style-type: none"> <li>● <b>Master's degree in Biotechnology and Toxins</b> Museum National d'Histoire Naturelle, Paris</li> </ul> <ul style="list-style-type: none"> <li>• Environmental Toxicology</li> <li>• Fish Model</li> <li>• Apoptosis</li> <li>• Stress Oxydative</li> <li>• Acid Okadaic</li> </ul>	📍 France, Paris
2002   2003	<ul style="list-style-type: none"> <li>● <b>Master's degree in Total Quality and Management</b> Ecole Nationale Vétérinaire d'Alfort, Paris</li> </ul> <ul style="list-style-type: none"> <li>• Veterinary</li> <li>• Safety food</li> <li>• Agro-food</li> <li>• Industry</li> <li>• Catering</li> </ul>	📍 France, Paris

1995  
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2000

● **Engineer's degree in Agronomy: Food technology**

Institut National Agronomique de Tunisie, Tunis

📍 Tunisia, Tunis



## SELECTED PUBLICATIONS

2014

● **Radiobiology Worker Risk Assessment Using Stress Indicators and Proteomics.**

Karim Mezhoud, Amina Sakly, Hassen Ben Cheikh, Mouldi Saïdi, and Marc Edery.

📍 *Int. J. Low Radiation* Vol.9, No.3, 2014.

2013

● **Graphical identification of cancer-associated gene sub-networks based on small proteomics data sets**

Karim Mezhoud

📍 *OMICS: A Journal for Integrative Biology* 2013 17(7): 393-397.

2011

● **Toxins and stress in fish: proteomic analysis and response network.**

Karim Mezhoud, Puiseux-Dao S., Edery M.

📍 *Toxicon*, 57(7-8), 959-969.

2009

● **Deciphering peculiar protein-protein interacting modules in *Deinococcus radiodurans***

Mezhoud K., Sghaier H. and Barkallah I.

📍 *Biology Direct*

2009

● **Toxicoproteomics: a way to unravel response pathways induced by a toxin**

Malécot M., Mezhoud K., Marie A., Praseuth D., Puiseux-Dao S. et Edery M.

📍 *Aquatic Toxicology*, (2009) 94(2):153-61.

2008

● **Global quantitative analysis of protein expression and phosphorylation status in the liver of the medaka fish (*Oryzias latipes*) exposed to microcystin-LR I. Balneation study**

Mezhoud K., Praseuth D., François J.C., Bernard C., and Edery M.

📍 *Aquatic Toxicology*, (2008) 86 : 166 - 175

2008

● **Proteomic and phosphoproteomic analysis of cellular responses to microcystin-LR in medaka fish**

Mezhoud K., Bauchet A.L., Praseuth D., Marie A., François J.C., Fontaine J.J., Jaeg J.P., Cravedi J.P., Puiseux-Dao S., Bernard C. and Edery M.

📍 *Toxicon* 51 (2008) 1431 - 1439

Last updated on 2021-06-07.