KARIM MEZHOUD

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 and 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 physic 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

2022 | Present

Charles Nicolle Hospitol of Tunis
📍 Tunisia, Tunis

System Administration and Data Scientist

- HPE Data server Storage
- Illumina Dragen Server for NGS data analysis
- Illumina NextSeq 550

2018 | Present

National Center for Nuclear Sciences and Technologies
📍 Tunisia, Tunis

Data Scientist

- Dockerise shiny App in cloud
- Web service, security, cloudflare, auth0, freenom
- Dashboard, shiny, shinymobile
- R package
- Data cleaning, Processing, exploring, and visualization
- Modeling and Prediction with R/Python
- Data auto-Reporting (Rmarkdown)
- RSQLite, MySQL, MSSQL
- TABLEAU
- github, gitlab, dockerhub
- DigitalOcean
- Agility: Scrum

2016 | Present

National Center for Nuclear Sciences and Technologies
📍 Tunisia, Tunis

Associate Professor

- 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 | Present

National Center for Nuclear Sciences and Technologies
📍 Tunisia, Tunis

Data Analyst

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

2009 | 2016

National Center for Nuclear Sciences and Technologies
📍 Tunisia, Tunis

Assistant Professor

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

CONTACT INFO

- ✉ kmezhoud@gmail.com
- 🎓 Portfolio
- ⌨ github
- in linkedin
- k kaggle
- 📞 +216 25-909-901

SKILLS

System Administration
Data Analysis
Data Processing
Data Viz
GNU/Linux, OSX
R Shiny, Python, Bash, Regex
Docker
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)

2004 | 2006

Freelance Self-employed
Consultant in safety foods

📍 Paris, France

· Consultant in hygiene and food safety in collective catering and restaurant in Paris
· Hygene 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

2020

COVID Tracker
RShiny Dashboard

📍 gitlab

2019

Business Analysis of Laptops
Rshiny Dashboard

📍 gitlab

2017

Radiant.dose A shiny app for Dosimetry Data management
Randiant.dose

📍 github

2018

PapSmear: Uterine Cervical test image classification using Deep learning
PapSmear

📍 github

2016

BioCancer is a Shiny App to explore interactively Multi-Assay of Cancer Genomic Data
bioCancer

📍 Bioconductor

2015

canceR - A Graphical User Interface for accessing and modeling the Cancer Genomics Data of MSKCC
canceR

📍 Bioconductor

🎓 EDUCATION

2009 | 2013

Habilitation à Diriger des Recherches (HDR)
Faculté des Sciences de Tunis

📍 Tunisia, Tunis

· Graphical identification of cancer-associated gene sub-networks based on small proteomics data sets.
· Teaching
· Structural Bioinformatics (3D protein structure modeling, Docking, interactomics)
· GNU/Linux for Biology (Shell, regex)
· Introduction to R in Biology (How to choice of statistic tests, graphics)

2004 | 2007

PhD in Proteomics and Bioinformatics
Museum National d'Histoire Naturelle

📍 France, Paris

· Proteomic and phosphoproteomic analysis of cellular responses in medaka fish (Oryzias latipes) following oral gavage with microcystin-LR
· Animal assay: Mouse, Fish, Rat
· Cellular assay: CHOK1
· Electrophoresis, mass spectrometry, imaging, Western blot

2003 | 2004

Master's degree in Biotechnology and Toxins

Museum National d'Histoire Naturelle, Paris

 France, Paris

· Environmental Toxicology
· Fish Model
· Apoptosis
· Stress Oxydative
· Acid Okadaic

2002 | 2003

Master's degree in Total Quality and Management

Ecole Nationale Vétérinaire d'Alfort, Paris

 France, Paris

· Veterinary
· Safety food
· Agro-food
· Industry
· Catering

1995 | 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

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