



Houcemeddine FILALI

Computer-science teacher at
IPEIM

- 10 September 1983
- Street Ibn Eljazzar - 5019 Monastir
TUNISIA
- +216 55 254 750
- houcemeddine3
- <https://sites.google.com/view/filali-houcemeddine/about>
- f.houcemeddine@gmail.com

Social Network

- Github Project Link

Languages

- A3rabic
- French
- English

About Me

A productive and detail-oriented professional with good research and communication skills. I consider myself a forever student eager to learn new things and working efficiently on the needed task.

Education

Study

2017 – 2019	Master of Research degree in Automatic Reasoning Systems-ARS	Faculty of sciences of Monastir-FSM
2013 – 2015	Bachelor degree in computer-science	Faculty of sciences of Monastir-FSM
2001 – 2013	Diploma of General University Studies (D.E.U.G.) Mathematics & technology	Faculty of sciences of Monastir - FSM
2003	Baccalaureate in Mathematics	Fattouma Bourguiba High School - Monastir

Training and seminars Attended

2016	Workshop on Advanced Python programming (WAP)	Hotel Naher El Founoun, Sfax
2017	Workshop on Python for Data Science (PDS)	Hotel Abou Sofiane, Sousse
2019	Training session on «Big Data»	Faculty of Sciences of Sfax
2019	Deep learning Spring school	Monastir Science Palace
2019	Conference on «AI and Deep Learning for medical applications»	Monastir Science Palace

Online certifications

2019	Fundamentals of Deep Learning for Multiple Data Types	NVIDIA Deep Learning Institute
2019	Fundamentals of Deep Learning for Computer Vision	NVIDIA Deep Learning Institute
2019	Deep Learning Fundamentals	IBM Developer Skills Network
2019	Python 101 for Data Science	IBM Developer Skills Network

ECO-C certifications

2021	Co-C Sken	ECO-C Mahgreb
2022	ECO-C IntComm/s	ECO-C Mahgreb
2022	ECO-C Trainer	ECO-C Mahgreb

Working Experience

Teaching and Mentoring Experience

2012 – now	Teacher	Preparatory School of Engineering Studies in Monastir-IPEIM
	Main activities:	<ul style="list-style-type: none"> Contributed in the elaboration of the national competition exams and preparation of online documents for candidates of the national competition during the pandemic computer programming and numerical simulation using Python Symbolic programming with Maple
2011 – 2012	Teacher	Faculty of Economics and Management Sciences of Sousse-FSEGS
	Main activity:	<ul style="list-style-type: none"> Tutoring mini-projects for final year bachelors of management and finance
2009 – 2012	Teacher	Faculty of Law and Political sciences of Sousse-FDS
	Main activity :	<ul style="list-style-type: none"> Teaching office suite and basics of computer skills: word processing, internet navigation, computer architecture, etc.
2008-2009	Part-time instructor	Faculty of sciences of Monastir - FSM
	Main activity :	<ul style="list-style-type: none"> Lecture and tutorials in theory of languages and automata

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Skills

C • C++ • C#

Python

Matlab • Maple

HTML • CSS • JS

Java (SE)

VB.NET

L^AT_EX

MS office

Django

Conducted training

- 2020 **Training session on Python object-oriented programming, numerical Python and relational databases**
Monastir Science Palace
- 2019 **Basics of L^AT_EX for scientific productions**
Engineering Camp, university accommodation: Elghazeli, Sousse
- 2019 **Training session on Python for numerical simulations**
National Engineering School of Monastir-ENIM
- 2018 **Training session on Python for scientific programming using Jupyter notebook**
Higher Institute of Computer Sciences and Mathematics of Monastir-ISIMM
- 2017 **Introduction to Object oriented programming with C++**
Monastir Private Higher School of Engineers

Projects

- 2017 Design and development of digital mammogram viewer
- Components oriented architecture.
 - Supports DICOM format.
 - Various visualization modalities.
 - Region labeling and measurements.
 - Different useful operations for radiologists: window leveling, gamma correction, etc.
- 2008 Design and development of a library of components for image visualization
- Image labeling and visualization with different modalities.
 - Image navigation components.
- 2007 Development of a web application for managing FSMs postgraduate students.

Research Experience

Developed an ant colony-inspired algorithm for imaged segmentation based on Markov random field to model image constraints. [1]

Research Publications

Journal Articles

- [1] Houcemeddine Filali and Karim Kalti. "Image segmentation using MRF model optimized by a hybrid ACO-ICM algorithm". In: *Soft Comput.* 25.15 (2021), pp. 10181–10204. DOI: 10.1007/s00500-021-05957-1. URL: <https://doi.org/10.1007/s00500-021-05957-1>.

Research interests

Optimization
Metaheuristics and biomimetics
Mathematical modeling and computer simulation
Machine Learning, CNN, AI

Extra-Curricular Activities

Sports Swimming, Body fitness
Music √
Calligraphy