

Moad Essabbar



Education

Engineering Degree in Embedded Systems and Industrial IT

National School of Applied Sciences
Fez, Morocco • 2017

Honors & Awards

2016 – **1st Place : ProtoTop competition**

2016 – **1st Place : Google Startup Weekend**

2012 – **Scholarship of Excellence MT2E**

Technical Skills

Programming & OSs

C/C++ • C embedded • Python • LabVIEW •
MATLAB • WinDev • ASM • VHDL •
HTML/CSS/JS • Git (*version control*) • Linux •
MacOs • Windows 7+

Hardware

Embedded Systems • Interfacing and
integration • Sensors • Actuators • Signal
acquisition and processing • Fast Prototyping
• Raspberry PI • Arduino • ESP8266...

Protocols

CAN • UART • I2C • SPI • SSH • TCP/IP • FTP

CAD & 3D design

Catia V5 • Fusion 360 • 3D printers setup,
maintenance and modding

Languages

French : Proficient
English : Proficient
German : Intermediate
Chinese : Basic
Arabic : Native

Interests

Machine Learning • IOT • 3D Printing •
Maker/DIY • Rotaract Club • Cycling •
Swimming • Société Française d'Acoustique

Contact & info

www.moadessabbar.com
Address • Driving Lisence
Phone • e-mail

Work Experience

Ph.D. candidate in Electronics, Components & Systems

IES • Montpellier *Oct. 2017 – Nov. 2020 (expected)*

- Nonlinear acoustic microscopy: developed a new method of Nondestructive Testing (NDT) and ultrasonic imagery, using the nonlinear effects of acoustic waves propagation.
- Built and programmed a fully automated scanning system designed for acquisition, display, storage and computation of data associated with measurement and mapping of acoustic fields using LabVIEW. Developed field simulation programs in Python/Matlab.

R & Shiny Developer

Service of scientific culture • UM *Sep. 2018 – Aug. 2019*

- Developed and integrated (in collaboration) a scientific software in R, that performed statistical analysis on stuffed animals regarding their morphology and emotional effects on their owners.
- More than 850 contributions from around the world composed the database of the analysis.

LabVIEW and signal processing lecturer

Montpellier University *Sep. 2018 – Aug. 2019*

Matlab developer • Ultrasonic microscopy • Internship

Université de Montpellier *Apr. 2017 – Aug. 2017*

- Developed a simulation software using Matlab and confirmed the results on a scanning acoustic microscope measurement bench.

Industrial IT • Internship

AUTEC - Automation Technology *June 2016– Aug. 2016*

- Built (in collaboration) a supervising and archiving system (HW/SW), for data coming from SIEMENS PLCs of the agro-food factory COPAG, using: Python - Windev – RaspberryPI.

Stage Ingénieur • Conception 3D

CIS MED *Juin 2015– Août 2015*

- 3D modeled (in collaboration) an automatic CNC tool changer.

Personal Projects *many more on www.moadessabbar.com*

AI : Implemented a genetic algorithm on Processing (Java based) that converges to a given solution from an initial random population by evolving over generations.

IOT : Built a wifi-connected weather station and made firmware allowing “Wi-Fi provisioning” for an easy setup.

Contrôle Gestuel : Built an IR based gesture recognition device. Integrated it in different systems/uses.