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Date of birth: February 13, 1987, Tunisia
Nationality: Tunisian
Marital status: Single
Licensed to drive a motor vehicle (B)

DATA Scientist Engineer

Work Experience

2013-2015
(3 years)

Research Engineer , **Orange Labs** , **Issy-les-Moulineaux, Paris, France** .

• Use statistical and machine-learning approaches to quantify the exposure induced by wireless networks (work supported by LEXNET project, further detail available on www.lexnet-project.eu) .

• Design, building and debugging of an electromagnetic simulator using Python.

• Design and implement statistical / predictive models allowing to approximate the exposure induced by wireless networks (GSM, 3G &LTE).

• Manipulating, Cleansing & Processing network traffics using Matlab and Python .

• Utilize the Chaos polynomial method for solving a black-box problem related to the EMF exposure.

• Characterizing the EMF exposure sensitivity using numerical simulations (FDTD) .

Keywords: Machine learning, Chaos polynomial, Linear regression, Matlab, Python, Linux, FDTD method, Electromagnetic compatibility (EMC).

2011
(6 months)

Research Engineer, **Laboratoire d'Informatique Gaspard-Monge**, **Paris, France**.
application of advanced coding techniques for relay channels.
• Examining the strategies of encoding and decoding applied at the physical layer: decode -and-forward (DF) strategy and compress-and-forward (CF) strategy .

Keywords: Relay Channel, Cooperation, Compress-and-Forward, Decode-and-forward, Information Measures and Typicality,Shannon theory, Matlab .

2010 (6 months)
Engineering Student , **Laboratory of Signals and Systems Supelec**, **Paris, France**.
Internship in the Multi-GPU parallelization of a 3D Bayesian CT algorithm and its application on real foam reconstruction with incomplete data set 3D .

• Study of iteratives methods used in the 3D tomographic reconstruction .

• Implementation of new working methods in a server multi-GPUs .

Keywords: Medical Imaging, Computed Tomograhy (CT), Iterative 3D reconstruction, Bayesian estimation, GPU implementation, Matlab, C, CUDA (GPU) .

2009 (3 months)
Engineering Student , **Tunisie Telecom**.
• Internship in the QoS Testing In a Live Private IP MPLS Network with CoS Implemented. .

• Analysis of Quality of Service (QOS)) over a Virtual Private Network (VPN) Using Multi Protocol Label Switching (MPLS) .

• Simulation of a MPLS-VPN architecture using GNS3 .

Keywords: OSPF routing protocol, Multiprotocol Label Switching MPLS-VPN, Cisco routers, QoS, GNS3 .

Teaching Experience

2015 **Ecole Superieure d'Electronique de l'Ouest** , Paris, France.
Maxwell's Theory for electromagnetism, 55 hours .

Education

2013-2015 **Telecom ParisTech** , Paris, France.
PhD student in radio communication systems.
Dissertation Title: Statistical characterization of the exposure to electromagnetic radiations emitted by wireless systems.

2011-2012 **University of Paris-Est Marne-la-Vallee** , France.
Master 2 in Signal Processing and Computing.

July 2011 **University of Paris-Est Marne-la-Vallee** , France.
Admitted to international master, Excellence Award given by LabEX Bezout.

2008 – 2011 **Higher School of Communication of Tunis (SUP'COM)**, Tunis, Tunisia.
Telecommunications Engineering.
Graduated with high honors.

2006 – 2008 **Preparatory Institute of Engineering of Tunis**, Tunis, Tunisia.
Completed a two-year scientific program in preparation for the national concours (competitive exams), Mathematics and Physics (MP) section.

2005 – 2006 Lycee bni khdach, Mednine, Tunisia.
Baccalaureate mathematics, Honors Graduation.

Key competencies and skills

• Strong background in signal processing and information theory .

• Excellent in programming languages including Matlab, python, R and C/C++ .

• Expertise solving partial differential equations using finite differences techniques (such as the FDTD method) .

• Sound knowledge of GSM/UMTS/LTE Architecture, RF Propagation, Antenna theory, Link Budget, Network Topology .

• Strong skills in mathematics and statistics :inverse problem methodology, good knowledge of experimental designs methods (such as the LHS), polynomial chaos decomposition .

• Competencies in qualitative & quantitative research methodologies .

• Strong presentation and communication skills, with experience in workshop moderation and teaching at University post-graduate level .

Computer Knowledge

Programming: Python, Java, C/C++, CUDA, Fortran & Bash .

Software: R, Matlab simulink, Scilab, VHDL, FPGA; CST, HFSS.
Operating Systems: Mac OS, Linux (RedHat)& Windows .

Office software: LATEX, MS Office (Excel, VBA, Macros, Word, Power Point) .

Telecommunication Skills

Academic background in advance routing protocols including (OSPF, MPLS VPN, BGP, RIP).
Relevant experience in Networking (Router/ Switch/ cabling) configuration using GNS3.

Languages

French:	fluent french.
English:	good skills, both written and oral: TOEIC:B2.

Certificates

CCNA Cisco Certified Network Associate 1-2-3-4 (Academic certification).
CCNA Cisco Wireless Certification (Academic certification).