

ABDELHAK BOUGOUFFA

Ph.D. Candidate / Researcher
R&D Robotics Engineer



Orsay, France

[Redacted]

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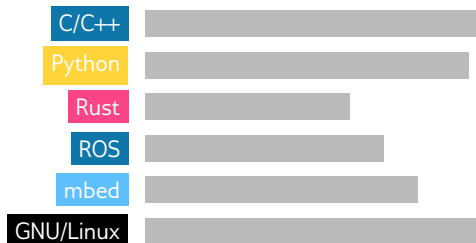
LANGUAGES

Arabic – native
English & French – fluent

+ OTHER SKILLS

Git, VHDL, C#, OpenMP, OpenCV, LaTeX, Matlab/Octave, IPython/Jupyter, Coding standards (CERT-C, CERT-C++ & Barr-C), FreeCAD, LibreOffice, Inkscape, GIMP...

TOP TECH SKILLS



EXPERIENCE

Since Sep-2019
Full-time

R&D Robotics Engineer

ez-Wheel, La Couronne, France

As a Cifre funded Ph.D student, my mission is to bring my research works on multiphysic data fusion, SLAM, embedded & distributed systems to the industrial world, developing reliable and robust localization system for the electric wheeling system, to be used in the context of *Industry 4.0* environment.

Jun-2018 – Aug-2019
Full-time

Research Engineer

Gustave-Eiffel University (ex-IFSTTAR), Champs-sur-Marne, France

Worked within *TS2/Simu&Moto* team on the SimuSafe European project (H2020), mainly on artificial intelligence, multi-agent and distributed systems applied to the development of a behavioral traffic simulator.

Apr-2018 – May-2018
Visiting

Research Engineer

Systems & Applications of Information & Energy Technologies - SATIE, Gif-sur-Yvette, France

Worked on refining a data acquisition, decoding and visualization software.

Aug-2017 – Jul-2018
Full-time

Research Engineer

Center for Development of Advanced Technologies - CDTA, Algiers, Algeria

Worked in the "*Robotics and Industrial Production division*"; within NCRM team (*Navigation et Contrôle des Robots Mobiles autonomes*), mainly worked on designing and implementing an embedded and distributed control system for a car-like mobile robot, implementing ROS packages (*Robot Operating System*), SLAM (*Simultaneous Localization and Mapping*), worked on car-like/differential mobile robots, CAN bus communication...

Oct-2017 – Feb-2018
Part-time

Lecturer

Saad Dahleb University of Blida, Blida, Algeria

Taught the applied courses of "*Robotics Intelligence*" module (Master 2), and supervised the students on their mini-project, which consists of designing and programming an autonomous mobile robot using an Arduino board and infrared/ultrasonic low-cost sensors.

Feb-2017 – Jul-2017
Internship

Trainee Engineer

Center for Development of Advanced Technologies - CDTA, Algiers, Algeria

Final year internship withing the "*Robotics and Industrial Production*" division, NCRM team, worked on a new SLAM method and implemented it using Python under ROS.

Apr-2012 – Jan-2017
Freelance

Python developer, GNU/Linux sysadmin and FOSS solutions integrator

Online on UpWork Inc. platform

Worked as freelancer on many projects including data processing and scraping, Linux system administration, integrating open source CMS's, designing relational databases...

EDUCATION

Since Sep-2019

Ph.D. Candidate / Researcher

Paris-Saclay University / ED STIC / SATIE Laboratory, Orsay, France

Currently seeking for a Ph.D. degree in Robotics, at the Paris-Saclay University, within the Laboratory of Systems & Applications of Information & Energy Technologies (SATIE).

Jul-2017

Master's degree

Mhamed Bougara University of Boumerdes, Boumerdes, Algeria

Studied *Distributed Computing Systems*, graduation project titled: "A Contribution to Simultaneous Localization and Mapping (SLAM) in an Unknown Urbain Environnement"

Jul-2015

Bachelor's degree (Licence)

Mhamed Bougara University of Boumerdes, Boumerdes, Algeria

Studied *InfoTronics (Computer sciences and electronics)*, graduation project titled: "Design and implementation of a Restful API using node.js"

May – Jun-2012	Volunteer Rescuer Certification Got certified as a volunteer rescuer (first-aid man).	Algerian Civil Protection, Boumerdes unit, Algeria
Jul-2011	Highschool Diploma (Baccalauréat) Got the Baccalauréat in the field of “ <i>Mathematics and Technology / Mechanical Engineering</i> ”, with Honors.	Hammadi Highschool, Boumerdes, Algeria

BONO & VOLUNTEERING

Active member of the open source community and a contributor to many open source projects.

Sep-2002 – Apr-2018	Scout Leader / Previous Boyscout Scout leader/educator [<i>Wood Badge certified</i>], participated in the organization of many national and regional scale events and activities.	Algerian Muslim Scouts
Apr-2013 – Jun-2016	Teacher & Speaker Teacher of Programming (using C and Python), GNU/Linux and free and open source culture.	Computer Science Club of the University of Boumerdes - CIUB
Dec-2013 – Apr-2015	Club President Managed the Computer sciences club (<i>Club Informatique de l'Université de Boumerdes - CIUB</i>) during two years.	Computer Science Club of the University of Boumerdes - CIUB

PUBLICATIONS

- Sara Bouraine, **Abdelhak Bougouffa** & Ouahiba Azouaoui; “Particle swarm optimization for solving a scan-matching problem based on the normal distributions transform”; 10.1109/ICARCV50220.2020.9305519; January 2021; *Journal of Evolutionary Intelligence*.
- Sara Bouraine, **Abdelhak Bougouffa** & Ouahiba Azouaoui; “NDT-PSO, a New NDT based SLAM Approach using Particle Swarm Optimization”; 10.1109/ICARCV50220.2020.9305519; December 2020; *16th International Conference on Control, Automation, Robotics and Vision (ICARCV 2020)*.
- **Abdelhak Bougouffa**, Emmanuel Seignez, Samir Bouaziz & Florian Gardes; “SmartTrolley: An Experimental Mobile Platform for Indoor Localization in Warehouses”; 10.1109/RCAE51546.2020.9294484; November 2020; *The 3rd International Conference on Robotics, Control and Automation Engineering (RCAE 2020)*.
- **Abdelhak Bougouffa** & Anis Hocine; “Contribution à la localisation et la cartographie simultanées (SLAM) dans un environnement urbain inconnu”; UMBB/123456789/4140; *Master thesis (french); CDTA/UMBB Jul-2017*.