

Dr. Wael Brahim

Correspondence language: English
Sex: Male
Date of Birth: 6/08
Canadian Residency Status: Work Permit
Applied for Permanent Residency?: Yes
Country of Citizenship: Tunisia

Contact Information

The primary information is denoted by (*)

Address

Home (*)

211 Maplewood Ave
Hamilton Ontario L8M 1x9
Canada

Telephone

Mobile (*) 1-289-4893503

Email

Work (*) brahimw@mcmaster.ca

Website

Social Media <https://www.linkedin.com/in/wael-brahim-6426665b>

Dr. Wael Brahim

Language Skills

Language	Read	Write	Speak	Understand	Peer Review
Arabic	Yes	Yes	Yes	Yes	
English	Yes	Yes	Yes	Yes	
French	Yes	Yes	Yes	Yes	

Degrees

- 2012/1 - 2017/11 Doctorate, Ph.D. Computer Science, Computer Science, University of Tunis ElManar, ENIT
 Degree Status: Completed
 Transferred to PhD without completing Masters?: Yes
- 2009/9 - 2012/9 Master's Equivalent, Engineer degree in applied Sciences and Technology, Applied sciences and technology, University of Manouba, ISAMM, Tunisia
 Degree Status: Completed
- 2006/9 - 2009/9 Bachelor's Equivalent, National Fundamental Bachelor's degree in Computer Science, Computer Science, University of Manouba, ISAMM, Tunisia
 Degree Status: Completed

User Profile

Fields of Application: Health System Management

Areas of Research: Chronic Diseases in Elderly

Research Specialization Keywords: Computer science Software engineering Image processing

Research Disciplines: Computer Engineering and Software Engineering

Employment

- 2018/11 - 2020/10 Postdoctoral Fellow
 Engineering department, SEPT, McMaster University
 Full-time
 Tenure Status: Non Tenure Track
 My work aims to bring an innovative health-tech product that offers a non-invasive, inconspicuous, portable and IoT-enabled solution for the assessment and early diagnostics of breathing disorders among the aging population, hence improving their quality of life as well as that of their care-givers, and reducing the healthcare burden.

2018/5 - 2018/11	Head of the engineering department Engineering department, Polytech Internationale, Tunis, Tunisia, Polytech Internationale, Tunis, Tunisia Tenure Status: Tenure, 2018/6 - 2018/10
2018/2 - 2018/5	Technical Project Manager GenioWorks, Tunisia
2013/9 - 2017/12	Freelance Developer MarketEvents, Tunisia

Affiliations

The primary affiliation is denoted by (*)

(*) 2018/11 - 2019/10	Research associate, Engineering department, McMaster University
2012/2 - 2017/11	Research associate, Engineering department, INSERM, France

Research Funding History

Awarded [n=1]

2018/11 - 2018/10	Mira Postdoctoral Fellowship
Principal Applicant	Funding Sources: 2018/11 - 2019/10 MIRA funding Mira Postdoctoral Fellowship Total Funding - 50,000 (Canadian dollar) Funding Competitive?: Yes

Courses Taught

2020/09/08 - 2020/12/24	Seasonal Teacher, Engineering department, McMaster University Course Title: C++ Programming Course Code: ENG TECH 1CP3 Course Topic: C++ Programming initiation Course Level: Undergraduate Section: Programming Academic Session: Fall Number of Students: 80 Lecture Hours Per Week: 2 Lab Hours Per Week: 2 Guest Lecture?: No
2019/01/04 - 2019/04/25	Seasonal Teacher, Engineering department, McMaster University Course Title: Augmented Reality, Virtual Reality and Mixed Reality Course Code: SEP 791 Course Topic: Video game development Course Level: Graduate Section: New technologies Academic Session: Winter Number of Students: 15 Lecture Hours Per Week: 3

2018/09/01 - 2018/11/01	Teacher, Undergraduate school, International Polytechnic High School, Tunisia Course Title: Web development 1 Course Topic: web development initiation Course Level: Undergraduate Number of Students: 25 Guest Lecture?: No
2018/09/01 - 2018/11/01	Teacher, Undergraduate school, International Polytechnic High School, Tunisia Course Title: Multimedia Tools Course Topic: Video game development Course Level: Undergraduate Number of Students: 25 Guest Lecture?: No
2018/09/01 - 2018/11/01	Teacher, Engineering department, International Polytechnic High School, Tunisia Course Title: Database conception Course Topic: Advanced database conception Course Level: Graduate Number of Students: 45 Guest Lecture?: No
2018/09/01 - 2018/11/01	Teacher, Engineering department, International Polytechnic High School, Tunisia Course Title: Web development 2 Course Topic: Advanced web development Course Level: Graduate Number of Students: 45 Guest Lecture?: No
2017/09/01 - 2018/01/31	Teacher, Undergraduate school, University of Manouba, ISAMM Course Title: C++ programming (OpenGL) Course Topic: C++ Programming initiation Course Level: Undergraduate Number of Students: 30 Guest Lecture?: Yes

Course Development

2019/1	Course developer, Engineering department, McMaster University Course Title: SEP 791: Augmented Reality, Virtual Reality and Mixed Reality Course Level: Graduate An in-depth exploration of the rapidly developing new interdisciplinary topic employing techniques from computer graphics, computer vision, and virtual immersion techniques with applications in varying fields including entertainment, manufacturing, and sciences. This course is a part of the new stream in creative technology which will be offered as a part of M.Eng. Design program. Digital creative technologies are a basis for visualization, rendering, virtual interaction, and simulation in many different fields, ranging from digital animation to medical simulation to 3D architecture.
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Community and Volunteer Activities

2019/6 - 2019/12	volunteer, World Animal Protection Financial and activities support
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Presentations

1. (2019). Remote Monitoring of breathing patterns using Thermal Camera. Three minute thesis presentation MIRA, Hamilton, Canada
Main Audience: General Public
Invited?: Yes, Keynote?: No, Competitive?: Yes

Publications

Journal Articles

1. Wael Brahim, Nacim Betrouni, Makram Mestiri, Kamel Hamrouni. (2019). The pleural thickening approximation from thoracic CT scans. Multimedia Tools and Applications, Springer (Impact Factor 2.31),. 78(10): pp 13033–13046.
First Listed Author
Published,
Refereed?: Yes
Number of Contributors: 4
Editors: Springer
Contribution Percentage: 91-100
Description of Contribution Role: Developed and implemented algorithms capable of segmenting pleural diseases from a set of CT scans and planning a preoperative gesture.
2. Wael Brahim, Makram Mestiri, Nacim Betrouni, Kamel Hamrouni. (2017). Malignant pleural mesothelioma segmentation for photodynamic therapy planning. Computerized Medical Imaging and Graphics, Elsevier (Impact Factor 3.75). 65(1): 79-92.
First Listed Author
Published,
Refereed?: Yes
Number of Contributors: 4
Editors: Elsevier
Contribution Percentage: 91-100
Description of Contribution Role: Developed a computer aided diagnostic system during two months to automatically locate the tumoral region and estimate the treatment surface that must be illuminated by the photodynamic therapy

Conference Publications

1. Wael Brahim, Makram Mestiri, Nacim Betrouni, Kamel Hamrouni. (2017). Malignant pleural mesothelioma segmentation from thoracic ct scans. IEEE. The 3rd International Conference on Advanced Technologies for Signal and Image Processing (ATSIP), ,
Conference Date: 2017/5
Paper
First Listed Editor
Published
Refereed?: Yes, Invited?: Yes
Number of Contributors: 4
Editors: IEEE
Contribution Percentage: 91-100
Description of Contribution Role: Developed and implemented algorithms capable of segmenting pleural diseases from a set of CT scans and planning a preoperative gesture.

- [2.](#) Wael Brahim, Makram Mestiri, Nacim Betrouni, Kamel Hamrouni. (2016). Semi-automated rib cage segmentation in CT images for mesothelioma detection. IEEE. International Image Processing, Applications and Systems (IPAS), ,
Conference Date: 2016/11
Paper
First Listed Editor
Published
Refereed?: Yes, Invited?: Yes
Number of Contributors: 4
Editors: IEEE
Contribution Percentage: 91-100
Description of Contribution Role: Implemented a real-time dosimetric system to ensure a uniform light distribution during the application of the photodynamic therapy