

# Houssem Marzougui

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**Summary** – Results-driven electrical and software engineer seeking a full-time position in an engineering and professional innovation environment which offers key participation, team-oriented tasks, immediate challenges, and career opportunity.

## Professional Attributes

- Fast learner with a strong desire to master new concepts and technologies.
- Have an interest in crafting efficient and scalable modern software solutions.
- Exceptional interpersonal and collaboration skills
- Excellent written and verbal communication in **English** and **French**.
- Strong capacity to work under stress and time constraint.

## Skills

- Machine learning, Signal processing
- HTML5, CSS3
- Python, JavaScript
- MATLAB, AutoCAD
- Excel data analysis (Pivot Tables)
- Windows, Unix, Shell scripting
- Version Control (Git), GitHub
- MS office tools
- Strong leadership and management background
- U.S Military Service Academy Graduate

## Education

### Master of Science in Electrical and Computer Engineering

University of Victoria. 2017-2020



Victoria, BC, Canada

### Bachelor of Science in Electrical Engineering

United States Naval Academy. 2007-2011



Annapolis, MD, USA

## Experience

### ❖ Remote Moderator

OneClass | Toronto, ON, Canada

08/2018 – Present

- Supervise and moderate platform educators to ensure highest quality service to students in North America.
- Engage undergraduate students across Canada and the U.S understand their math, computer science, and engineering learning objectives through extensive project assignments.

### ❖ Technical Analyst

Deloitte | Kitchener, ON, Canada

01/2019 – 11/2019

- Produced and partially managed Scientific Research and Experimental Development (SR&ED) technical reports for clients in many industries including TMT and Manufacturing in English and French in a rapid and challenging work environment.
- Discussed and studied clients full design engineering projects to determine their innovation levels and SR&ED eligibility.

### ❖ Research Assistant

University of Victoria | Victoria, BC, Canada

05/2018 – 04/2020

- Implemented and simulated medical ultrasound imaging algorithms in Matlab using adaptive and conventional plane wave compounding techniques that reduced computational complexity and maintained similar image quality.

## ❖ Teaching Assistant

University of Victoria |  Victoria, BC, Canada  
09/2017 – 04/2020

- ECE 355 - Microprocessor Based Systems: Introduction to programming microprocessors using C language.
- ECE 426 - Robotics: Introduction to robot manipulator kinematics using Matlab.
- ECE 365 - Applied Electronics and Machines: Introduction to the foundational elements of electrical machines and electronics circuits.

## ❖ Communications Officer

Tunisian Navy |  Tunis, Tunisia  
06/2011 – 02/2017

- Developed and supervised maintenance planning for all transmission Radio equipment onboard naval units to ensure full operational status of different communication systems.
- Mastered the operation of radio communication, transmission, and satellite systems onboard that are essential for operational safety.
- Developed and conducted training sessions for communication team members.
- Conducted several safety and damage control drills and exercises.

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## Projects

- Compressive Sensing in Ultrasound Imaging: developed a Matlab code that constructs ultrasound medical images incorporating compressive Sensing Algorithm to reduce computations
- Android Face Recognition Application: developed and implemented a facial recognition application on an android smartphone. It involved knowledge of Android Java operating system, Eigen face recognition algorithm, and the ability to interface hardware and software.

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## Publications

- "H. Marzougui and D. Rakhmatov, "Data-Driven Sensor Array Subsampling for Plane-Wave Ultrasound Imaging," 2019 IEEE International Ultrasonics Symposium (IUS), Glasgow, United Kingdom, 2019, pp. 2337-2340, doi: 10.1109/ULTSYM.2019.8925560".

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## Interests

- Technology, Soccer, Hiking, cooking, Health and wellness.

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## Languages

- English (Fluent)
- French (Fluent)
- Arabic (Native)

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## References

- Dr. Nathan Murray, Director of Educator Management, OneClass, 647-727-1244, nathan@oneclass.com
- Amy San Miguel, Team Leader and Tax Manager, Gi3, Deloitte, 519-650-7820, asanmiguel@deloitte.ca
- Dr. Daler Rakhmatov, Graduate Supervisor, University of Victoria, 250-472-5214, daler@ece.uvic.ca