

Houssem Marzougui

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Summary – Results-driven computer 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

- Compressive Sensing, Signal processing
- HTML5, CSS3
- Material UI, Bootstrap, Tailwind
- Python, JavaScript, MATLAB
- React JS, Next JS, REDUX
- MongoDB, MySQL, Strapi
- Node JS, Express JS, EJS
- Version Control (Git), GitHub
- Heroku, Netlify, Firebase and Vercel deployment
- REST API, Postman, Docker (basic), Bash
- Data Structures and Algorithms
- Strong leadership and management background
- U.S Military Service Academy Graduate

Personal Projects

- **Digi-Thrifting**: A MERN e-commerce application for cheap electronics: We have the best prices! **Site features**: Shopping Cart, Admin panel, Login, Logout, Full payment process, Search products, Reviews, and PayPal payment SDK. **Features**: Frontend: React (Router, Redux), Bootstrap, Axios. Backend: Node.js, REST API, JWT, MongoDB.
- **DJ-Events**: Full-Stack website that allows users to check on upcoming DJ events uploaded by authenticated users. **Features**: Frontend: Next.js (use of Context API), authentication (JWT and cookies). Backend: Strapi (MySQL based).
- **CodeFever**: Personal Blog about programming. **Features**: Next.js, Tailwind, Markdown files, Vercel
- **Portfolio**: Personal Portfolio. **Features**: React.js (Router, Context, Pagination), Material-Ui, Bootstrap, Email.js.
- **GameDB**: A responsive React site that displays all you need to know about video games. **Features**: React, APIs, Styled Components, Framer Motion, Axios, Redux and Thunk.
- **ZougPlayer**: A responsive music player application built with React. **Features**: React, Sass
- **WeatherApp**: A responsive Next.js web page that offers weather info to any city in the world, in addition to auto local current weather detection and news footer display. **Features**: Next.js, Tailwind, Weather API, News API.
- **Chat-with-React**: A chat application that enables room users to group chat. **Features**: React, Node.js, socket.io.
- **MCTA**: A responsive client-side tutoring webpage that enables customers to discover what MCTA is all about. **Features**: Vanilla.js, Bootstrap, PayPal payment SDK, LocalStorage.

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 and Teaching 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.

❖ Software Engineer at Design office

The Naval Electronics Division | 📍 Tunis, Tunisia

05/2015 - 02/2017

- Developed a Tracking Software using TLD algorithm to enhance weapon systems by adding the capacity of auto-aiming (.Net/C#, DSP)
- Developed a Technical report and messaging software to support Mechanical engineers on warships. (SQL, Node.js/JS)
- Developed and implemented facial recognition on Android for safe ship access. It involved knowledge of Android Java operating system, Eigen face recognition algorithm, and the ability to interface hardware and software (Android Java)

❖ Communications Officer

Tunisian Navy | 📍 Tunis, Tunisia

06/2011 – 04/2015

- Developed and supervised maintenance planning for all transmission Radio equipment onboard naval units to ensure full operational status of different communication systems.
- Developed and conducted training sessions for communication team members.

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”.

Interests

- Technology, hiking, cooking, crypto mining, health and wellness

Languages

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

References

- 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