

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)
- Designed a smart ship engine surveillance system where Temperature and pressure are collected from the engine sensors using an Arduino board and communicated via TCP/IP connection to a Web App that ensures treating and displaying the data. (SPA, C++, Node-Red, JavaScript, SQL)
- Developed a Technical report and messaging software to support Mechanical engineers on warships. (SQL, .Net/C#)

❖ 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