

Matthew Beirouti

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OBJECTIVE: Driven and creative Computer Engineer with diverse experience. Eager to learn, particularly in a growing start up where I can gain exposure to and experience with various techniques and tools in Machine Learning.

EDUCATION:

McGill University, Montreal, QC

Bachelor of Engineering / Computer Engineering

May 2018

WORK EXPERIENCE:

Current Powered by GE, Montreal, QC

May 2017 – December 2017

EEDP Intern – Quality Assurance

- Developed automated test scripts for LightGrid – an outdoor wireless embedded control system
- Led the building of the stress and scalability testing framework for LightGrid's backend
- Evaluated various performance metrics on a network with over 200 LightGrid nodes
- Aggregated data and accumulated findings into presentable, easy to understand reports
- Interfaced with various teams (both local and international) to troubleshoot and debug observed issues
- Conducted automated and manual verification and acceptance tests on a smart embedded LED driver

McGill University, Montreal, QC

May 2015 – August 2015

Undergraduate Research Assistant – Mobile Robotics Lab (MRL)

- Tested, troubleshooted and fail proofed ocean drifters which collect and relay research data through TCP and ROS, to an autonomously controlled boat
- Optimized Python code and bash scripts to decrease power consumption, increase ease of use and increase data collection efficiency
- Deployed and troubleshooted the ocean drifters and the autonomous boat to collect integral research data for a PhD candidate over the course of a week-long field trial

McGill University, Montreal, QC

September 2012 – December 2014

Teachers Assistant (Design Principles and Methods & Computers in Engineering)

- Utilized C, Java and MATLAB skills to enhance students' understanding of engineering principles such as programming, troubleshooting, debugging and calibrating robots and source code
- Sharpened code review ability by evaluating submitted code as well as lab demonstrations and reports
- Refined presentation skills by leading demos, tutorials and exam review sessions

PROJECT EXPERIENCE (VOLUNTEER):

3DMena, Amman, Jordan

July 2016 – August 2016

Project Engineer

- Implemented a spoken password protected, voice controlled switch to unlock the door to our lab using a Raspberry Pi and other peripherals
- Worked with Jasper, a python based open source platform which simplifies the integration of existing speech-to-text and text-to-speech APIs, allowing quick application development
- Documented progress in a simple, easy to read format to enable replication and future development

McGill University, Montreal, QC

May 2014 – June 2014

Undergraduate Assistant – Mobile Robotics Lab (MRL)

- Independently built a proof of concept for a visible light communication (VLC) system that modulated and demodulated data signals using microcontrollers (Arduino / Teensy), RC filters and LEDs.
- Analyzed various modulation techniques using MATLAB to ensure design met tight budget constraints

LEADERSHIP EXPERIENCE:

McGill University, Montreal, QC

September 2014 – April 2015

VP Internal – Electrical, Computer, Software Engineering Student Society (ECSESS)

- Led the planning of various social and departmental events with a team of 5-10 people
- Surveyed target audience to ensure event effectiveness and monitor progress

TECHNICAL SKILLS:

Programming / HDL: Python, C, Java, HTML, CSS, VHDL

Tools / OSes: Git, Pandas, Scikit, NumPy, OpenCV, Microsoft Office, Windows, Linux

Other Spoken Languages: French (intermediary), Arabic (mother tongue)