Zeyad Saleh

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Education

Bachelor of Engineering, Computer Engineering, Minor: Biomedical Engineering — **Sept**13 – **Dec**17 (Expected)
McGill University, Montreal, QC
GPA: 3.62/4
Member of the Golden Key International Honour Society (Top 15% of my class)

Awards

- **Top 10 hacks** & **Best Application of Analytics Award** by Mnubo (Drive Safe project, Wearhacks 2015)
- **4th place Microsoft coding competition** (Algorithms) (McGill University, 2015)
- **3rd place European Rover Challenge Competition** (McGill Robotics, 2015)
- **3rd place static judging** & **Best Branding Award** AUVSI competition (McGill Robotics, 2014)

Internships

Avionics Systems Intern, Engineering Vehicle Simulation Team — **May**16 – **Present**
CAE (Canadian Aviation Electronics), Ville St-Laurent, QC
- Worked on **debugging** the virtual simulators of 2 business jets (Embraer's Phenom 100 and Phenom 300)
- Used several tools like **Wireshark** to trace packets sent via HSDB and other internal tools which monitor the several layers linking the content of the packets to the common database. Modifying the **C++** code accordingly.
- Working in a fast paced Agile Scrum environment to deliver the project on time.

Software Developer Intern, High Performance Computing Lab — **July**15 – **Aug**15
George Washington University, Washington D.C., USA
- Ported and optimized benchmarks from **C** and **openMP** to **Chapel** (Sorting and NQueens)
- Tested the time performance of the program in these 2 languages on one of their **Linux** servers via **SSH**

Software Developer Intern, Shared Reality Lab — **May**14 – **July**14
McGill University, Montreal, QC
- Worked with a team of researchers on a **sociology project to connect 2 rooms auditorily.**
- **Designed a simple GUI in Java** that allows the users to have certain **control over the quality of information** conveyed to the other end by **analyzing and manipulating real time audio data** from the microphone.

Projects

SONO, BIAPT Lab — **Sept**16 – Present
McGill University, Montreal, QC
- Building an **iOS application** that collects, displays and uploads physiological signals from a wristband to a server.
- Using this data to **classify emotions** through **machine learning**.
- Transforming the physiological signals to music (biomusic) in real time.

Software Division Member, Mars Rover, McGill Robotics — **Sept**14 – **Dec**15
McGill University, Montreal, QC
- **2014:** Established the RS485 communications protocol using C and Arduino. The system governs communication over the driver system, arm, servo, battery controllers and end effectors
- **2015:** Member of the arm section. Creating the arm's model using URDF and SRDF files
- Using ROS and C++ to provide functionality to the arm by computing FK and IK equations using MoveIt Library

Drive Safe project (Team of 4) — **Oct**15
WearHacks competition, Montreal, QC
- Designed a product that uses the **Muse headband**, **pebble watch** and **android phone** to monitor the brain activity of truck drivers (through **EEG signals** and **Muse's accelerometer data**) and **alert** them in times of sleepiness.
- The data collected is stored in a **database** to build a complete profile of each driver.

Project Manager, Design Project Team — **Feb**15 – **Apr**15
McGill University, Montreal, QC
- Managed and participated in constructing and **autonomous robot** using **Java** and **Lego Mindstorms**.
- Designed and implemented the **algorithms for the light sensor localization** and **odometry correction**.
- Gave **weekly presentations** to clients (professors) and produced highly valuable and descriptive **documentation.**
- The robot was capable of navigating while avoiding obstacles and shooting ping pong balls on several targets.

Skills

Technical Skills: Java, C, Swift, LabVIEW, VHDL, Chapel, HTML, CSS, JavaScript and Assembly
Spoken Languages: English, French, Arabic, Spanish