

# Mohamed El Shatshat

University of Waterloo **2B Mechatronics Engineering**

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## Technical Skills

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<b>Software</b>	C, C++, Python, ROS, SQL, MATLAB, Linux, Windows
<b>Hardware</b>	Arduino, Raspberry Pi, BeagleBone, PLC, FPGA, PCB Prototyping
<b>Practical</b>	Soldering, CNC Machining, ANSYS, 3D Printing, SOLIDWORKS, EAGLE, Full Professional Fluency in French

## Work Experience

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**SQA Developer**      Imagine Communications, Waterloo, ON      January 2016 – April 2016

*Imagine Communications is a global leader in media software and video infrastructure solutions.*

- Worked closely with developers as part of the Onyx team to identify and fix bugs
- Wrote detailed descriptions outlining the cause and effect of the identified bugs
- Developed **Python** scripts to automate testing and stress the software

**Mechatronics Engineer**      Solus Robots, Vaughan, ON      June 2015 – Sept 2015

*Solus Robots is a start-up focused on building humanoid robots for the retail and security industries.*

- Designed and manufactured multiple prototype robot arms using **SOLIDWORKS, CNC Routers, 3D Printers, and Arduino**
- **Soldered** Arduino shields and designed **PCB prototypes**
- Calibrated the PID controllers of various joints on the robot using **Arduino**

## Projects

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**Patient Questionnaire**      *Developed for Hack4Health 2015*

- Designed a questionnaire GUI in **Python** for collecting data from Multiple Sclerosis patients
- Questionnaire gathered data into a database using **SQL**, then graphed and analyzed it using Excel
- Wrote macros with VBA to notify the user via email after significant deviations in the data

**Embedded Space Invaders**      *June 2016 – July 2016*

- Developed a Space Invaders game on an ARM-Based board
- Wrote code in **C** to handle multiple threads, game logic, peripherals, and display.
- Fixed multiple bugs to deliver a polished end product