# Jean Nassar | Résumé

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**Interests**: Automation, AI, robotics, statistics, space, anatomy

Citizenships: Canada, Lebanon, Sierra Leone

Certifications: CPR HCP (Health Care Provider), Lebanese driving license

# Education

MS Mechanical Engineering Science	<b>2014–Present</b>
Kyoto University, Mechatronics Laboratory	Kyoto, Japan
Research student	<b>2013–2014</b>
Kyoto University, Mechatronics Laboratory	Kyoto, Japan
BASc, Honours Mechatronics Engineering University of Waterloo	<b>2008–2013</b> <i>Waterloo, ON</i>

## **Publications**

1. "Developing a System of Superimposed Past Image Records Implemented for Teleoperation of an Unmanned Multirotor." Jean Nassar. Supervisor: Fumitoshi Matsuno. Masters thesis, Kyoto University, 2016.

# Co-op experience

## Starquip Integrated Systems, Ltd

Spring 2012

Junior Engineer

Toronto, ON

- o Assisted in the mechanical design of custom pneumatic lift-assist devices
- o Created modular assemblies and circuits
- o Reduced design time for new systems
- o Converted 2D drawings to 3D assemblies
- Produced ASME-compliant drawings

#### Kevin Quan Studios, Ltd

Fall 2011

Junior Project Engineer

Toronto, ON

- o Completed basic and intermediate Solidworks instruction
- o Created assemblies and drawings of mountain and racing bicycles
- o Wrote airfoil generator and exporter using LibreOffice Calc, Python
- Performed 2D and 3D CFD analysis of airfoils and bicycles
- o Determined the optimum configuration for several racing bicycles
- o Designed tooling molds and parts for various bicycle components

#### **Intelligent Mechatronics Systems, Inc**

Hardware Associate

Winter 2011 Waterloo, ON

Prototyped hardware solutions for future products

o Provided general assistance to lead design engineers

#### University of Waterloo

Spring 2010

Research Assistant, Multiscale Additive Manufacturing Lab

Waterloo, ON

- Designed, procured, and built essential parts for the enclosure, printhead assembly, and environmental isolation system for a solid freeform fabrication workstation
- Workstation produces 3D scaffolds for bone and cartilage regrowth
- o Performed image processing on electron micrographs using Octave

#### **American University of Beirut**

Fall 2009

Research Assistant, Computer Vision and Mobile Robotics Lab

Beirut, Lebanon

- o Researched and developed a positional navigation system for robots
- o Quantized Inertial Measurement Unit (IMU) error

#### Sierra Construction Systems, Ltd

Winter 2009

Engineer in Training

Freetown, Sierra Leone

- Computerized payroll and significantly saved time and resources using Microsoft Excel, Word, and VBA programming
- o Payroll productivity increased by approximately 6000%
- o Performed cost and time estimation for various construction projects

# Selected projects

- o Software lead for lab's teleoperation robot, built from scratch
- o Automation of assembly line robot (Allen-Bradley PLCs)
- o Résumé and cover letter generator (Python, Jinja, and LATEX)

## **Selected courses**

- Robotics
- Automatic control systems
- Mechatronic system integration
- o Electromechanical machine design
- Modern control theory
- Finite element analysis
- o Microproc. systems and interfacing
- Algorithms and data structures

## Technical skills

- o Python (incl. SciPy stack), C++, C, ROS, Matlab, gnuplot, LATEX
- o Linux (Arch, Fedora, Ubuntu), Microsoft Windows (XP to 10)
- o Raspberry Pi, Arduino, mbed, AVR, Allen Bradley PLC
- Solidworks, Autodesk Inventor, AutoCAD, Sketchup
- o Vim, Git, Gimp, Inkscape, LibreOffice, Microsoft Office

# Natural languages

Fluent: English, French, Lebanese, Japanese

Intermediate: Spanish, Arabic

Beginner: German, Mandarin, Russian, Krio