

Jean Nassar

Résumé

Interests Automation, AI, robotics, statistics, space, anatomy
Citizenships Canada, Lebanon, Sierra Leone
Certifications CPR HCP (Health Care Provider), Lebanese driving license

Education

2014–Present **MS Mechanical Engineering Science**, *Kyoto University*,
Mechatronics Laboratory, Kyoto, Japan.
2013–2014 **Research student**, *Kyoto University*, Mechatronics Labora-
tory, Kyoto, Japan.
2008–2013 **BASc, Honours Mechatronics Engineering**, *University of*
Waterloo, Waterloo, ON.

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

Spring 2012 **Junior Engineer**, *Starquip Integrated Systems, Ltd*, Toronto, ON.

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

Fall 2011 **Junior Project Engineer**, *Kevin Quan Studios, Ltd*, Toronto, ON.

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

Winter 2011 **Hardware Associate**, *Intelligent Mechatronics Systems, Inc*, Waterloo, ON.

- Prototyped hardware solutions for future products
- Provided general assistance to lead design engineers

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- Spring 2010 **Research Assistant**, *Multiscale Additive Manufacturing Lab*, University of Waterloo, 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
 - Performed image processing on electron micrographs using Octave
- Fall 2009 **Research Assistant**, *Computer Vision and Mobile Robotics Lab*, American University of Beirut, Beirut, Lebanon.
- Researched and developed a positional navigation system for robots
 - Quantized Inertial Measurement Unit (IMU) error
- Winter 2009 **Engineer in Training**, *Sierra Construction Systems, Ltd*, Freetown, Sierra Leone.
- Computerized payroll and significantly saved time and resources using Microsoft Excel, Word, and VBA programming
 - Payroll productivity increased by approximately 6000%
 - Performed cost and time estimation for various construction projects

Selected projects

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

Selected courses

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

Technical skills

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

Natural languages

- Fluent English, French, Lebanese, Japanese
- Intermediate Spanish, Arabic
- Beginner German, Mandarin, Russian, Krio