# 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**, Kyoto University, Mechatronics Laboratory, Kyoto, Japan.　　2014–Present

**Research student**, Kyoto University, Mechatronics Laboratory, Kyoto, Japan.　　2013–2014

**BASc, Honours Mechatronics Engineering**, University of Waterloo, Waterloo, ON.　　2008–2013

## 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

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

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

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

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

**Research Assistant**, Multiscale Addi-     **Spring 2010**
tive Manufacturing Lab, University of
Waterloo, Waterloo, ON.

- Designed, procured, and built essential parts for the en-
  closure, 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

**Research Assistant**, Computer Vision     **Fall 2009**
and Mobile Robotics Lab, American Uni-
versity of Beirut, Beirut, Lebanon.

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

**Engineer in Training**, Sierra Construc-     **Winter 2009**
tion Systems, Ltd, Freetown, Sierra
Leone.

- Computerized payroll and significantly saved time and re-
  sources 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
  LaTeX)

## Selected courses

- Robotics
- Automatic control sys-
  tems
- Mechatronic system in-
  tegration
- Electromechanical ma-
  chine 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, LaTeX
- 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