

Lucas Jones

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Phd. candidate with significant experience working cooperatively on complex, lengthy projects. Strong programming experience and tenacity in solving novel math, simulation and technical problems.

EDUCATION

Data Science Retreat, Machine Learning, Deep Learning (3 month program)

Completed August 2018

- Project: “*GANs for map generation*”, Tensorflow, Google Earth Engine
- Trained on Tensorflow, One shot learning, SVMs, etc
- Learned modern web technologies: Apache Spark, Docker, AWS,

Systems Engineering Certificate, Model Based Systems Engineering (4 course professional certificate)

Completed March 2018. Online through Massachusetts Institute of Technology

- Functional decomposition
- Coupled models to support development of complex systems

Master of Science, Atomic, Molecular and Optical Physics

Completed Fall 2012. University of Waterloo, Waterloo ON.

- [Paper](#): “*Rydberg atoms with a reduced sensitivity to dc and low-frequency electric fields*”, Physical Review A, January 2013
- [Thesis](#): “*Reducing the electric field sensitivity of a Rydberg state transition by the application of a non-resonant microwave field*”
- Conference: CIFAR Cold Atoms Conference (2010 Banff, Canada). Title: “*Using non-resonant microwave fields to null electric dipole moment differences between Rydberg levels*”

Bachelor of Science, Applied Physics

Completed Fall 2010. University of Waterloo, Waterloo ON

Self Guided Learning

- Ludwig-Maximilians-Universität München (Coursera, Completed March 2019)
[Computers, Waves, Simulations](#): *Review of FDM, FEM & SEM*
- University of Geneva (Coursera, Completed March 2019)

[Simulation and modeling of natural processes](#): *Cellular Automata, LBM etc.*

- Massachusetts Institute of Technology (Self-Guided):
[Probabilistic Systems Analysis and Applied Probability](#): *Bayes, Markov, etc.*
- Lorena Barba - Unaffiliated (Self-Guided):
[CFD Python: 12 steps to Navier-Stokes](#): *Implementing 2D Navier Stokes*
- Stanford University (Self-Guided):
[Convolutional Neural Networks for Visual Recognition](#): *CNNs etc. from scratch*

SKILLS

Programming Languages: Python, Java, C, C++, Assembly, JS, VB, Matlab, Octave, etc.

Data Science: TensorFlow, Numpy, Machine Learning, Jupyter Lab

Web Technologies: Flask, Node, Angular, AWS, SQLite

PROFESSIONAL EXPERIENCE

Systems Engineer at 2555218 Ontario Corp. (founder and director)

*Contracted to Safran Electronics and Defense Canada, through Aversan Inc.
(Peterborough, ON, Canada)*

Jan '17 to Jan '18

- Solely responsible for all systems level documentation on the H160 Airbus Helicopter braking controller
- Proactively identified future obstacles to certification, and worked outside of the systems engineer role when required to resolve those issues
- Interfaced with software and hardware personnel on a technical basis, and communicated with the customer in a succinct and systematic manner
- Came up to speed on a complex project, and quickly began improving processes and organization

Software Engineer at Aversan Inc.

Contracted to Safran Electronics Canada (Peterborough, ON, Canada)

Feb '15 to Sep '16

- V&V on Bombardier Global 7000/8000 APU and LGSCU at Safran Electronics and Defense Canada (January 2015 to September 2016)
- Prime contributor in developing the test development procedure for a 3000 man-hour testing campaign with 9 team members
- Generated a team coordination system which also tracked progress and generated customer facing estimates
- Senior tester, responding to issues and ensuring the team is working well
- Authored the testing standards documentation which became the official operating procedure for all hardware/software test activities company wide

Contracted to Honeywell Aerospace (Mississauga, ON, Canada)

Mar '13 to Jan '15

- Standalone V&V on the F22 ECS - a highly complex test system
- Lead meetings with clients to pass project milestones
- Trained multiple personnel on a highly complex system

INTERESTS

- Cycling, Camping, Hockey
- History, Geopolitics, Emerging Technology
- AutoCAD Inventor, Machining, Embedded Electronics