# RYAN P. MARCHILDON

www.rpmarchildon.com
ca.linkedin.com/in/ryanmarchildon

4144 Powderhorn Crescent, Mississauga ON, Canada | 416-219-1317 | ryan.marchildon@rangle.io

## EDUCATION

2015 **Master of Applied Science**, **Electrical and Computer Engineering**
**University of Toronto,** Toronto, Canada | Cumulative GPA: 4.0/4.0

2012 **Bachelor of Applied Science**, **Engineering Physics**
**Queen's University**, Kingston, Ontario, Canada | Cumulative GPA: 3.97/4.0 (top 2%)

Visit www.rpmarchildon.com to see my portfolio and work history.

## HIGHLIGHTS

- **5+ years experience with scientific computing in academic & research settings**. Includes: developing and implementing statistical analysis algorithms for prototype quantum computers (at the Institute for Quantum Computing); signal processing, time-series analysis, generative modelling, and correlation analysis on experimental data for novel sensors (at the University of Toronto); and image cleaning & reconstruction for 3D biomedical imaging (at Queen's University).
- **Strong Data Science & Machine Learning Skills:** Building pipelines in Python for data cleaning, exploration, multivariate analysis, and classification; using TensorFlow and Keras to develop neural networks on GPUs for image classification and natural language processing (e.g. customer review analysis); deploying machine learning apps to the cloud (e.g. via Amazon SageMaker).
- **Experience Launching a Technology Startup:** Finding and communicating value opportunities with a cutting-edge technology, pitching to stakeholders, design thinking, and rapid prototype iteration (at QuWare Inc).
- **Teamwork & Leadership:** Includes leading multidisciplinary university design teams (Technical Director of Queen's Fuel Cell Team – managed 40 undergraduates), organizing tech meetups (chaired ECE Connections 2014 at UToronto), and past involvement in student politics (QueensYOU Campaign – spoke at University Senate and met one-on-one with the Principal).
- **A long track record of excellence and effective communication** including 1 patent, 6 peer-reviewed publications in scientific journals, 8 research conference papers, and more than 7 merit-based awards including a full undergraduate scholarship.

## PROGRAMMING & SOFTWARE SKILLS

- Python (advanced, including SciPy, Pandas, scikit-learn, and seaborn libraries)
- Deep Learning APIs (TensorFlow, Keras)
- Deployment & DevOps (Docker, Nginx, Gunicorn, Flask, Amazon SageMaker)
- Source control (Git)
- MATLAB
- Servers & Databasing (JavaScript, Node.js, MySQL)
- Jupyter
- LaTeX
- Mathematica
- C, C++ (familiarity)

## RECENT WORK EXPERIENCES

| | |
|---|---|
| **Machine Learning Developer, Rangle.io**<br>Dec. 2018 – present | Working at a leading software consultancy, I help clients find and implement Artificial Intelligence opportunities that bring value to their business. Past projects include strategic product roadmapping for a client in the financial compliance sector and development of a machine learning application for audio classification. |
| **Junior Developer, Clotho.ai**<br>Sept. 2018 – Nov. 2018 | Pro-bono work programming tasks for a Node.js based API at a young pre-revenue startup in the field of forensic analysis. |
| **Co-Founder & CTO, QuWare Inc.**<br>Oct. 2016 – Sept. 2018 | Co-founded a biomedical imaging hardware startup with a University of Toronto Professor and successfully led it through Toronto's **Creative Destruction Lab**. |
| **Research Associate, University of Toronto**<br>Dec. 2016 – May 2018 | Defined and managed research projects for emerging optical technologies; led experiment design, provided training, coordinated team, secured funding. |
| **Junior Electrical EIT, Condoplex Inc.**<br>Mar. 2016 – Sept. 2016 (part-time contract) | Interfaced and tested a prototype echo-cancellation unit with the company's voice-over-IP intercom systems and audio processing hardware. |
| **Research Assistant, University of Toronto**<br>Mar. 2016 – Dec. 2016<br>Sept. 2012 – Mar. 2015 | Designed and manufactured chip-based medical biosensors in a cleanroom environment. Designed, simulated, and tested integrated optical circuits for advanced sensing and information-processing applications. |
| **Intern, Institute for Quantum Computing**<br>May 2012 – August 2012 | Programmed control software and algorithms for prototype quantum computers; ran statistical tests for performance analysis (using Python and Mathematica). |