

# George Steel

## Highlights of Qualifications

- Experience across many different aspects of computer science including Backend Web Development, Machine Learning, Functional Reactive Programming, Embedded Systems, Android App Development, Databases, UI Design, Digital Typesetting, and Image Processing.
- Strong background in the underlying mathematics of computing including the areas of Algebra, Category Theory, Foundational Logic, Theory of Computation, Algorithm Analysis, Numerical Analysis, Dynamical Systems, and Game Theory.
- Familiarity with Haskell, JavaScript, C, C++, Python, SQL, and TeX.

## Education

2010–2016 **University of Toronto**, *Hon. B. Sc. in Mathematics*.

- Minors in Computer Science and Biology.
- Graduated with High Distinction (GPA 3.9).
- Recipient of the George Roderick Fraser Scholarship in Mathematics for four years.

## Employment History

Nov 2017 – **Full-stack Software Developer**, *Satsuma Labs*.

- Created a prototype mobile application using a Haskell backend and a React-Native frontend.
- Developed a number of open-source libraries furthering the Haskell web service and react-native ecosystems. (Available at <https://github.com/SatsumaLabs>)

May 2016 – **Software Developer**, *Peter Jurgec*, Linguistics, University of Toronto.

- Created browser-based educational software currently used in introductory phonology courses. (Available at <http://phonology.us/>)
- Rewrote and further developed a research tool for analyzing the relative frequency of sound patterns. This involved finite automata and maximum entropy machine learning. (Available at <https://github.com/george-steel/maxent-learner>)

Sept 2014 – **Private tutoring**.

May 2016 Helped a student overcome her difficulties and pass multiple specialist-level math courses she had failed on her previous attempts.

Sept 2013 – **IT Assistant**, *ENAGB Youth Program*, Native Canadian Centre of Toronto.

Mar 2014 Created a responsive website for the ENAGB program (featuring a dynamic events calendar) along with a variety of promotional materials (posters, brochures, business cards, etc.) for the program.

Summer 2011, **Summer Research Assistant**, *Gilbert Walker*, Chemistry, University of Toronto.

- Performed spectroscopy and microscopy supporting research into creating nanoparticle based markers for medical diagnostic use.
- Developed a new spectrographic method for determining the shapes of sub-wavelength gold nanoparticles with much higher sensitivity than previously attained.

Summer 2010 **Software Developer**, *Kerr Vayne Systems*.

Created a web application to stream real-time data for schedule display in a broadcast automation system.

## Community Involvement

Spring 2013 **Intern**, *Teaching Drum Outdoor School*.

- Assisted with several outdoor projects including the spring leek harvest and repairing several buildings.
- Set up and built equipment for a recording studio and CD production operation.
- Completed all design and production work for a CD release.

2012–2013 **Founding Member of Advisory Council**, *ENAGB Youth Program*, Native Canadian Centre of Toronto.

Helped to guide the formation of a new mental health program dedicated to serving Native youth in Toronto, which I stayed involved with for many years afterwards.