George Steel

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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

Jun 2019 – Nov 2020 **Software Developer**, *Chrome Animations*, Google Canada.

- Helped complete and launch the WebAnimations API, giving a unified script interface to all declarative animations.
- Numerous bugfixes and optimizations including allowing percentage transform animations (sidebars and some popups) to run off-thread, reducing jank across the internet.

Nov 2017 – Feb 2019 **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 – May 2017 **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 – May 2016 **Private tutoring**.

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

Sept 2013 – Mar 2014 **IT Assistant**, *ENAGB Youth Program*, Native Canadian Centre of Toronto.

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, 2012 **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.