

# BRECHANN MCGOEY PHD

brechann.mcgoey@gmail.com | 647-230-9381 | <http://www.linkedin.com/in/brechann-mcgoey-62018>

Quantitative geneticist with expertise in data analysis, statistics and communication. Passionate about finding meaningful stories in big data.

## Skills

**Languages:** R, Python, Scala, SQL

**Data analysis:** 8 years experience data wrangling, statistical modelling (Bayesian and frequentist) machine learning, graph analysis, NLP, and web scraping

**Distributed computing:** experience using Spark and MapReduce

**Visualization:** 10 years experience using R and Adobe Illustrator for data visualization, experience generating interactive visualizations using bokeh, plotly, D3.js

**Writing:** 5 peer reviewed publications, 3 newspaper and magazine articles

**Communication:** 2 teaching awards, best talk award, 8 conference presentations

## Work Experience & Education

### Fellow

*The Data Incubator*

Capstone project: Modern Romance

September 2017-Nov 2017

- Data science bootcamp focused on uncovering data-driven insights
- Generated tools to predict romance novel success

### Ph.D.

*University of Toronto*

Ecology and Evolutionary Biology

September 2011-October 2018

- Implemented advanced linear algebra methods and Bayesian models to quantify genetic diversity
- Sanitized, preformed genome wide data analysis and outlier detection on a 5GB+ genetic dataset
- \$115,000+ in scholarships and awards

### Research Assistant

*Royal Ontario Museum*

Summer 2011

- Coordinated specimen digitizing and databasing
- Used linear models, PCA and fourth corner analysis to determine connections between ecological, genetic and morphological data

### Science Intern

*Royal Botanical Gardens*

January 2010 to March 2011

- Coordinated and executed research projects, analyzing complex ecological data in SYSTAT & R

### Master of Science

*University of Toronto*

Ecology and Evolutionary Biology

September 2007-August 2009

- Implemented mathematical models using SAS and R to examine phenotypic selection
- \$20,000+ in scholarships

### Bachelor of Science

*University of Guelph*

Biology

September 2003-April 2007

- Graduated with Distinction