PhD Candidate [gabenespoli.com](http://www.gabenespoli.com/)

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[Toronto, Ontario, Canada](https://goo.gl/maps/xUCv7GDgGPy) [github.com/gabenespoli](http://github.com/gabenespoli)

*Skills*: data analysis, machine learning, signal processing, research design, EEG

*Tools*: MATLAB, Python, R, Shell, Linux, git, vim

## Work Experience

### PhD Candidate *2014-2018* | *Ryerson University*

* Designs and programs experiments measuring neural (EEG, FFR; [BioSemi](https://www.biosemi.com/), [Biopac](http://www.biopac.ca/) and physiological (SCL, EMG, HR; [Biopac](http://www.biopac.ca/)) activity
* Uses signal processing algorithms for analyzing multi-channel biological data (e.g., filtering, time-frequency transforms, independent components analysis)
* A/B testing to compare different analysis pipelines
* Gained a reputation for EEG expertise, and consults on research design and analysis
* Communicates technical ideas to non-technical audiences with ease
* Gives biannual workshops on data analysis, signal processing and programming in MATLAB for 5-10 attendees
* Develops software for analysis and visualization of biological time-series data ([link](https://github.com/gabenespoli/phzlab)) and for measuring neural entrainment ([link](https://github.com/gabenespoli/entrainment)), which are in use by others in the department

### MA Student *2012-2014* | *Ryerson University*

* Designed and programmed EEG studies
* Quickly learned and served as the resident expert in EEG analysis software ([EEGLAB](https://sccn.ucsd.edu/eeglab/index.php))
* Developed scripts for extracting spectral features from EEG data, using both Fourier and wavelet methods

### Research Operations Coordinator *2010-2012* | *Ryerson University*

* Collaborated with researchers on experimental design and analysis
* Offered training and support on research tools (hardware & software)
* Managed department resources and liased with manufacturers
* Teaching assistant for a course on computational methods
* Managed the purchasing of research tools, including EEG, VR, and eye-tracking

### Lab Manager *2007-2010* | *Ryerson University*

* Managed, organized and executed daily lab activities
* Ran participants in neural, physiological, and behavioural experiments
* Involved in the purchasing, setup, maintenance, and running of the lab’s recording studio
* Recorded and edited audio/video stimuli (Pro Tools, Premiere Pro)
* Developed analysis tools and instructed others on their use (MATLAB, Excel)
* Gained a reputation as the go-to person for tech and analysis

## Education

PhD in Psychology (Neuroscience) *2014-2018 | Ryerson University* 2014-2018 | Ryerson University

Machine Learning Certificate *2017 | Stanford University via coursera.org*

MA in Psychology (Neuroscience) *2012-2014 | Ryerson University*

BSc in Psychology *2003-2007 | McGill Universit**y*