Gabe Nespoli, Ph.D.

Kitchener, Ontario, Canada
gabenespoli@gmail.com | 647-878-4223
linkedin.com/in/gabenespoli | github.com/gabenespoli

Summary

- Resourceful innovator and creative thinker who developed a novel analysis method for assessing localized neural dynamics
- Experienced programmer with a keen interest in machine learning
- Superb communication skills and ability to clearly explain complex ideas

Work Experience

Knowledge Translator & Mentor   Sep 2018–Present
as a Data Scientist at Ryerson University

- Creates software tools for analysis and visualization of biological time-series data, automating many analyses and saving hours of researcher time
- Creates tutorials and mentors graduate students, inspiring them to learn programming and empowering them to understand and manipulate their data
- Projects: PHZLAB (*github link*), Neural Entrainment Toolbox (*github link*)

Innovator of Advanced Signal Processing Techniques   Sep 2012–Aug 2018
as a Graduate Student at Ryerson University

- Pioneered novel analyses measuring localized neural entrainment from EEG data, leading to new insights about how different parts of the brain track the beat in music
- Used advanced signal processing algorithms to extract meaningful values from noisy multi-channel biological data
- Facilitated biannual workshops on programming and data analysis in MATLAB

Technical Expert & Liaison   Feb 2010–Aug 2012
as a Research Operations Administrator at Ryerson University

- Quickly mastered new technologies and tools in order to provide training and support to researchers and other collaborators
- Liaised with dozens of manufacturers to facilitate the purchase of over $1 million of research infrastructure

Team Member & Audio Engineer   Jul 2007–Feb 2010
as a Lab Manager at Ryerson University

- Part of a team who developed the Emoti-Chair—a sensory-substitution technology that presents music as vibration—enabling more access to auditory music for deaf people, among other applications
- Responsible for the operation of the lab's recording studio, creating audio-visual research materials to support countless studies, resulting in 7 publications

Education

Doctor of Philosophy (Ph.D.)   2018
Ryerson University
The neuroscience of groove: Neural mechanisms marrying music and movement

Machine Learning Certificate   2017
Stanford University via coursera.org

Master of Arts (M.A.)   2014
Ryerson University
Musicianship and neural synchronization at multiple timescales

Bachelor of Science (B.Sc.)   2007
McGill University
Beauty in the body of the beholder: The physiological correlates of musical emotion

Interests

- Music: jazz organ, folk and bluegrass guitar
- Sports: hockey (goalie), golf, and cycling
- Food: gardening, cooking, and eating