Gabe Nespoli

PhD Candidate gabenespoli.com
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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, Biopac and physiological (SCL, EMG, HR; Biopac) 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) and for measuring neural entrainment (link), 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)
- 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 Psychological Science	*2014-2018	Ryerson University*
Machine Learning Certificate	*2017	Stanford University via coursera.org*
MA in Psychological Science	*2012-2014	Ryerson University*
BSc in Psychology	*2003-2007	McGill University*