

# Stephanie Cheung

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## Research Interests

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- auditory neuroscience, speech, motor learning and control, paediatric rehabilitation, music and health, signal processing

## Training

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**Doctoral Candidate (Biomedical Engineering & Collaborative Program in Neuroscience)** **Toronto, ON**  
*University of Toronto* *Sept, 2015 - present*  
**Project:** Development of auditory-motor integration for speech-motor control.  
**Supervisor:** Dr. Deryk Beal.

**Master's of Applied Science (Electrical & Computer Engineering)** **Hamilton, ON**  
*McMaster University* *Sept, 2012 – Sept, 2014*  
**Thesis:** Modelling the Neural Representation of Interaural Level Differences for Linked and Unlinked Bilateral Hearing Aids.  
**Supervisor:** Dr. Ian C. Bruce.

**Bachelor of Engineering (Electrical & Biomedical Engineering)** **Hamilton, ON**  
*McMaster University* *Sept, 2008 – Apr, 2012*  
**Capstone:** "MACBot": A Robotic Toy for Children with Autism Spectrum Disorders.  
**Thesis:** A Comparison of Wavelet and Short-Time Fourier Transform Techniques for Analysis of Auditory Cortex Beta-Band Activity.  
**Supervisors:** Dr. Hubert de Bruin; Dr. Laurel Trainor; Dr. Takako Fujioka

## Awards & Scholarships

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**Nov, 2016:** Holland Bloorview Spotlight Award - Partnership

**Sept, 2016 – present:** Wildcat Graduate Scholarship

**Sept, 2016 – present:** Eleanor Cate Allen Fellowship

**Apr, 2016:** Holland Bloorview Spotlight Award - Excellence, Innovation, Partnership, and Respect

**Sept, 2015 – Aug, 2016:** Wildcat Graduate Scholarship

**Sept, 2014:** Certificate of Excellence for Outstanding Thesis

**Aug, 2014:** International Hearing Aid Research Conference Student Scholarship

## Research Experience

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**Graduate Researcher** **Toronto, ON**  
*PEARL Lab, Bloorview Research Institute* *Sept, 2015 – Dec, 2016*

**Research Assistant** **Toronto, ON**  
*PEARL Lab, Bloorview Research Institute* *Nov, 2014 – Aug, 2015*

**Ward Family Research Summer Student** **Toronto, ON**  
*PEARL Lab, Bloorview Research Institute* *May, 2011 – Aug, 2011*

**Research Assistant** **Hamilton, ON**  
*Auditory Development Lab, McMaster Institute for Music and the Mind* *May, 2010 – Jan, 2011*

## Teaching & Supervision

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### Supervisor, Research Volunteers and Summer Student

PEARL Lab, Bloorview Research Institute

Toronto, ON

Dec, 2015 – Aug, 2016

### Teaching Assistant, “Cellular Bioelectricity”

Dept. of Electrical & Computer Engineering, McMaster University

Hamilton, ON

Winter, 2013 & 2014

### Teaching Assistant, “Structure of Biological Materials”

Dept. of Electrical & Computer Engineering, McMaster University

Hamilton, ON

Fall, 2012 & 2013

## Peer-Reviewed Journal Articles

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**Cheung, S.\***, Han, E.\*, Kushki, A., Anagnostou, E., & Biddiss, E. (2016) “Biomusic: An auditory interface for detecting physiological indicators of anxiety in children.” *Front Neurosci.* 10:401. doi: [10.3389/fnins.2016.00401](https://doi.org/10.3389/fnins.2016.00401) (\*equal contribution)

## Invited Talks

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**Cheung, S.T.** (Feb, 2016). “Merging music and technology for paediatric rehabilitation.” at *Science of Music Seminar Series*, Vanderbilt University, Nashville, TN.

## Contributed Conference Presentations

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**Cheung, S.**, Hodge, A., Khan, A., Chen, J., Biddiss, E. (Nov, 2016). “Development of music-based video games for upper limb rehabilitation therapy in children with cerebral palsy.” at *12th Annual NeuroMusic Conference*, Hamilton, ON.

**Cheung, S.T.** (Mar, 2016). “MusicMaster: Movement through Music.” at *CP-NET Workshop 2016*, Toronto, ON.

**Cheung, S.T.** & Bruce, I.C. (May, 2015). “Can auditory brainstem and midbrain processing of interaural level difference cues really explain perceptual performance?” Presented by I.C. Bruce at *169th Meeting of the Acoustical Society of America*, Pittsburgh, PA.

**Cheung, S.T.** & Bruce, I.C. (Aug, 2014). “Modeling the neural representation of interaural level differences for linked and unlinked bilateral hearing aids.” at *International Hearing Aid Research Conference*, Lake Tahoe, CA.

## Service & Outreach

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### Co-Chair

Bloorview Research Institute Trainee Executive

Toronto, ON

Sept, 2016 – present

### Program Co-Director

Collaborative Program in Neuroscience Undergraduate Mentorship Program

Toronto, ON

Feb, 2016 – present

### Co-Founder

All About Kids Research (<http://www.allaboutkidsresearch.ca>)

Toronto, ON

Jan, 2016 – present

### Events Chair

Bloorview Research Institute Trainee Executive

Toronto, ON

Oct, 2015 – Aug, 2016

*Last updated Dec 1<sup>st</sup>, 2016.*