

## **WILL HOWIE**

wghowie@gmail.com | willhowie.com

### **EDUCATION**

- 2018      **Doctor of Philosophy, Sound Recording**  
McGill University, Montreal  
Thesis Title: “Capturing Orchestral Music for Three-Dimensional Audio Playback”  
Supervisors: Prof. Richard King, Prof. Wieslaw Woszczyk
- 2008      **Masters of Music, Sound Recording**  
McGill University, Montreal
- 2004      **Bachelors of Music, Secondary Education**  
University of British Columbia, Vancouver

### **ACADEMIC and ARTISTIC HONOURS and AWARDS**

- 2025      Canada Council for the Arts Concept to Realization Grant
- 2021-2023      FY2021 JSPS Postdoctoral Fellowship for Research in Japan (Standard)  
(Japan Society for the Promotion of Science)
- 2015 - 2018      SSHRC Joseph-Armand Bombardier Canada Graduate Scholarship  
(Social Sciences and Humanities Research Council)
- 2017      International Graduate Mobility Award (McGill University)
- 2015      Graduate Research Enhancement and Travel Award (McGill University)
- 2015 - 2017      CIRMMT Student Travel Award x 3  
(Centre for Interdisciplinary Research in Music Media and Technology)
- 2014 - 2015      Graduate Excellence Fellowship (McGill University)
- 2014      King Graduate Award (McGill University)
- 2009      Canadian Academy of Recording Arts and Sciences Fred Sherratt Award

### **PROFESSIONAL EXPERIENCE**

- 2006 - Present      **Audio Engineer | Music Producer | Consultant**, Vancouver, Montreal
- Producing, recording, editing, mixing, and mastering stereo and multichannel audio content for commercial release, streaming, and live performance. Immersive audio research and publication. Consultant for audio and acoustics installation and optimization.
  - Please see pages 7–14 for professional credits
- 2023 – Present      **Recording Engineer**, CBC/Radio-Canada, Vancouver
- 2018 - 2021,  
2011 - 2014      • Recording, editing, mixing, and mastering content for national broadcast/distribution on CBC Radio, CBC Television, and CBC Podcasts. Live concert PA and monitor mixing. Employee training; audio solutions research.
- 2019      **Director, Research and Audio**, Audible Reality, Vancouver
- Director of research for binaural and loudspeaker-based immersive audio software applications; Director of immersive audio production and acoustic measurements.
- 2009 - 2014      **Assistant Head Technician**, Chan Centre for the Performing Arts, Vancouver
- Front of house and monitor mixing for major international touring artists; venue acoustics, PA, and monitor system tuning; archival recording; equipment maintenance.
- 2008-2009,  
2007      **Senior Audio Associate** – The Banff Centre, Banff
- Recording, mixing, editing, and mastering commercial releases, studio sessions, demos and live concerts; production and post-production audio for short films; teaching studio orientation classes; live sound reinforcement.
- 2007 - 2008      **Concert Recording and Live Sound Coordinator** – Schulich School of Music, McGill University, Montreal
- Scheduled concert recordings and live sound, FOH/monitors/recording engineer, trained engineers, completed payroll documents.

2005 - 2008      **Sound Engineer** – Schulich School of Music, McGill University, Montreal  
 • Recording, mixing, editing, and mastering live concerts, student and faculty recordings, and live sound reinforcement.

## TEACHING EXPERIENCE

2025 - present      **Sessional Lecturer**, University of British Columbia, Vancouver  
 • Course Title: Introduction to Music Technology (Winter)  
 • Teaching and updating undergraduate survey course on topics related to music technology, sound, hearing and auditory perception

2024 - present      **Sessional Lecturer**, University of British Columbia, Vancouver  
 • Course Title: Introduction to Electroacoustic Music (Fall)  
 • Teaching and updating undergraduate course covering technical, compositional, and historical aspects of electroacoustic music creation and performance

2023                  **Course Instructor**, Tokyo University of the Arts, Tokyo  
 • Course Title: Music Production Seminar/録音スタジオ制作研究 (Spring)  
 • Developed and taught curriculum for weekly seminar for undergraduate and graduate students covering a broad range of topics related to music production across many genres

2021                  **Guest Lecturer**, University of British Columbia, Vancouver  
 • Designed and taught multi-day workshop on acoustic music recording and production

2018, 2019, 2025      **Invited Faculty**, Banff Centre for Arts and Creativity, Banff  
 • Directed annual multi-day intensive workshop on stereo and immersive audio production  
 • Supervision of Audio Recording Engineer Practicum

2018                  **Course Instructor**, McGill University, Montreal  
 • Course Title: Audio Production Essentials (Winter)  
 • Lectures and demonstrations for undergraduate survey course on audio production, preparation and grading of assignments and exams  
 • Co-developed curriculum

2017 – 2018          **Course Instructor**, McGill University, Montreal  
 • Course Title: Introduction to Sound Recording (Fall/Winter)  
 • Teaching undergraduate students practical classes and lectures on various aspects of sound recording and reproduction, evaluation of students' recorded work

2014 – 2017          **Course Instructor**, McGill University, Montreal  
 • Course Title: Digital/Analog Editing (Fall)  
 • Developed curriculum, instructed and assessed students for graduate level course in analog and digital music editing

2015                  **Teaching Assistant**, McGill University, Montreal  
 • Course Title: Introduction to Electroacoustics (Winter)  
 • Graded lab reports and met with students to discuss results

2014 – 2015          **Teaching Assistant**, McGill University, Montreal  
 • Course Title: Webcasting Coordinator/Recording Engineer (Fall/Winter)  
 • Directed team of audio and video technicians in the production of live broadcasts of Schulich School of Music concerts  
 • Attended production meetings, researched aspects of content live streaming

## ACADEMIC RESEARCH EXPERIENCE

2021-2023          **Postdoctoral Research Fellow**, Japan Society for the Promotion of Science, Tokyo University of the Arts, Tokyo  
 • Investigating perceptual and physical effects of lower-elevated sound in 3D audio reproduction; developing novel 3D sound capture methods  
 • Research Host: Prof. Toru Kamekawa

- 2019, 2017      **Invited Researcher**, Tokyo University of the Arts, Tokyo  
 • Investigating perceptual differences between immersive sound capture techniques\
- 2014 - 2018      **Doctoral Student**, McGill University, Montreal  
 • Developing and evaluating sound capture methods for three-dimensional audio reproduction systems, focusing on music recording and mixing  
 • Investigating perceptual differences between 3D audio reproduction formats  
 • Investigating listener training for evaluation of 3D audio reproduction
- 2010 – 2012      **Field Assistant for Doctoral Researcher**, Simon Fraser University, Burnaby  
 • Soil coring, hydrological measurements, hydrochemical measurements, vegetation inventory
- 2010              **Research Assistant**, McGill University, Montreal  
 • Assisting in the capture of high resolution multichannel impulse responses of various acoustic spaces in Vancouver, Canada  
 • Supervisor: Prof. Wieslaw Woszczyk
- 2006              **Research Assistant**, McGill University, Montreal  
 • Maintaining and testing audio for high resolution video link between McGill University and University of British Columbia  
 • Supervisor: Prof. Wieslaw Woszczyk

## PUBLICATIONS

### Publications in peer-reviewed journals:

W. Howie, D. Martin, A. Marui, T. Kamekawa, S. Kim, A. Aydin, R. King, “Perceptual comparison of 3D audio reproduction with and without bottom channels,” *J. Audio Eng. Soc.*, Vol. 72, No. 4, 2024.

S. Kim, W. Howie, “Influence of the listening environment on recognition of immersive reproduction of orchestral music sound scenes,” *J. Audio Eng. Soc.*, Vol. 69, No. 11, 2021.

W. Howie, D. Martin, S. Kim, T. Kamekawa, R. King, “Effect of skill level on listener performance in 3D audio evaluation,” *J. Audio Eng. Soc.*, Vol. 68, No. 9, 2020.

W. Howie, D. Martin, S. Kim, T. Kamekawa, R. King, “Effect of audio production experience, musical training, and age on listener performance in 3D audio evaluation,” *J. Audio Eng. Soc.*, Vol. 67, no. 10, 2019.

W. Howie, R. King, D. Martin, “Listener Discrimination Between Common Speaker-Based 3D Audio Reproduction Formats,” *J. Audio Eng. Soc.*, Vol. 65, No. 10, 2017.

### Publications in editor-reviewed journals:

R. King, B. Leonard, W. Howie, J. Kelly, “Real Rooms vs Artificial Reverberation: An evaluation of actual source audio vs. artificial ambience,” *Proceedings on Musical Acoustics*, Vol. 29, No. 1, 2016.

### Publications in conference proceedings:

N. Brochec, T. Tanaka, W. Howie, “Microphone-based Data Augmentation for Automatic Recognition of Instrumental Playing Techniques,” in *International Computer Music Conference*, Seoul, South Korea, 2024. {hal-04642673}

S. Kim, D. Ko, W. Howie, “Validation of a Neural Network Clustering Model for Affective Response to Immersive Music,” in *AES Convention 155*, New York, 2023.

S. Kim, W. Howie, “Neural-network clustering for evaluating immersive sound fields,” in *inter-noise 2023*, Chiba, 2023.

- W. Howie, T. Kamekawa, M. Morinaga, “Case Studies in Music Production for 3D Audio Reproduction with Bottom Channels,” in *AES International Conference on Spatial & Immersive Audio*, Huddersfield, 2023.
- T. Kamekawa, A. Marui, W. Howie, “The effect of head tilt on the perception of the top layer of three-dimensional audio,” in *AES International Conference on Spatial & Immersive Audio*, Huddersfield, 2023.
- W. Howie, A. Marui, T. Kamekawa, F. Grond, A. Omoto, “Objective comparison of 3D audio reproduction with and without bottom channels,” in *AES International Conference on Spatial & Immersive Audio*, Huddersfield, 2023.
- E. Ekici, W. Howie, T. Kamekawa, “Field Report on 3D Audio Capture of Solo Piano for Classical Music Productions,” in *13<sup>th</sup> International Hisarli Ahmet Symposium*, Kütahya, 2023.
- W. Howie, D. Martin, T. Kamekawa, J. Kelly, R. King, “Comparing immersive sound capture techniques optimized for acoustic music recording through binaural reproduction,” in *AES Convention 150*, Online, 2021.
- W. Howie, “Pop and Rock music audio production for 22.2 Multichannel Sound: A Case Study,” in *AES Convention 146*, Dublin, 2019.
- W. Howie, D. Martin, D. Benson, J. Kelly, R. King, “Subjective and objective evaluation of 9ch three-dimensional acoustic music recording techniques,” in *AES International Conference on Spatial Audio*, Tokyo, 2018.
- S. Kim, W. Howie, D. Martin, “Comparison of Salient Percepts Associated With Three Sound-Field Capturing Methods,” in *ICSV25*, Hiroshima, 2018.
- R. King, B. Leonard, W. Howie, J. Kelly, “Real or Illusion? A comparative study of captured ambience vs. artificial reverberation in immersive audio applications,” in *AES Convention 142*, Berlin, 2017.
- W. Howie, R. King, D. Martin, F. Grond, “Subjective Evaluation of Orchestral Music Recording Techniques for Three-Dimensional Audio,” in *AES Convention 142*, Berlin, 2017.
- M. Boerum, B. Martin, R. King, G. Massenburg, D. Benson, W. Howie. “Lateral Listener Movement on the Horizontal Plane: Sensing Motion Through Binaural Simulation,” in *AES 61<sup>st</sup> International Convention*, London, 2016.
- W. Howie, R. King, D. Martin, “A Three-Dimensional Orchestral Music Recording Technique, Optimized for 22.2 Multichannel Sound,” in *AES Convention 141*, Los Angeles, 2016.
- R. King, W. Howie, J. Kelly, “A Survey of Suggested Techniques for Height Channel Capture in Multi-channel Recording,” in *AES Convention 140*, Paris, 2016.
- W. Howie, R. King, M. Boerum, D. Benson, A. Han, “Listener preferences for height channel microphone polar patterns in three-dimensional recording,” in *AES Convention 139*, New York, 2015.
- B. Martin, R. King, B. Leonard, D. Benson, W. Howie, “Immersive content in three-dimensional recording techniques for single instruments in popular music,” in *AES Convention 138*, Warsaw, 2015.
- W. Howie and R. King, “Exploratory microphone techniques for three-dimensional classical music recording,” in *AES Convention 138*, Warsaw, 2015.

## REGISTERED INVENTIONS

Howie, William. 2016. Three-Dimensional Music Recording System. McGill Report of Invention #16123. Disclosed June 4<sup>th</sup>, 2016.

## INVITED PRESENTATIONS and LECTURES

- 2023 “Workshop: Mix Reviews,” and “Lecture: An Approach to Music Recording for 3D Audio Reproduction,” University of Victoria, Victoria, November 22, 2023, 3 hours.
- “Workshop on Drum Recording,” Tokyo University of the Arts, Tokyo, October 17, 2023, all day.
- “Case Studies in Music Production for 3D Audio Systems with Bottom Channels,” AES International Conference on Spatial and Immersive Audio, Huddersfield, August 2023, 90 minutes.
- “An Approach to Music Recording for Large-Scale 3D Audio Reproduction,” Korean Advanced Institute of Science and Technology, Daejeon, April 2023, 90 minutes.
- “Workshop on 3D Audio Research,” Tokyo University of the Arts, Tokyo, March 2023, 2 Days.
- 2022 “Audio: Science in Service of Art,” Hibiya High School, Tokyo, November 2022, 90 minutes.
- “3D Music Production,” McGill University, Montreal, October 2022, 180 minutes.
- “Immersive Music Recording and Mixing Case Studies,” Tokyo University of the Arts, Tokyo, July 2022, 120 minutes (x 2).
- 2020 “Case Studies in 3D Music Production,” McGill University, Montreal, October 2020, 180 minutes.
- “Podcast Audio,” CBC/Radio-Canada, Vancouver, February 2020, 60 minutes.
- 2019 “Recording Pop/Rock Music for 3D Audio Production,” Audio Engineering Society, Tokyo University of the Arts, Tokyo, November 2019, 90 minutes.
- “Workshop on 3D Rock Music Recording for 22.2 Multichannel Sound,” Tokyo University of the Arts, November 5, 2019, All Day.
- “Microphones and Microphone Technique for Broadcast Audio,” CBC/Radio-Canada, Vancouver, October 2019, 60 minutes.
- “Case Studies in Jazz and Pop/Rock Music Production for 3D Audio,” *AES Convention 146*, Dublin, March 2019, 60 minutes.
- “Recording Orchestral Music and 3D Audio: Challenges, Considerations, and Solutions,” (with Toru Kamekawa, Kimio Hamasaki, Alex Kosiorek, Hyunkook Lee) *AES Convention 146*, Dublin, March 2019, 90 minutes.
- 2018 “Techniques for recording and mixing classical, jazz, and pop/rock music for 3D audio,” Department of Electrical Engineering, Simon Fraser University, Burnaby, October 2018, 25min.
- “Techniques for recording and mixing pop, rock, and jazz music for 22.2 Multichannel Sound,” *2018 AES International Conference on Spatial Reproduction*, Tokyo Denki University, Tokyo, August, 2018, 75 minutes.
- “Microphone Techniques for 3D sound recording,” (with Hyunkook Lee, Kimio Hamasaki, Helmut Wittek, Toru Kamekawa, Thorsten Weigelt, Florian Camerer) *2018 AES International Conference on Spatial Reproduction*, Tokyo Denki University, Tokyo, August, 2018, 120 minutes.
- 2017 “Recording for 22.2”, as part of *Workshop on DSP applications in the recording studio*, Centre for Interdisciplinary Research in Music Media and Technology, McGill University, November 2017, 60 minutes.

- “Immersive Audio Capture for 22.2 Multichannel Sound (updated)”, Tokyo University of the Arts, Tokyo, April 2017, 60 minutes.
- “Techniques for Three-Dimensional Audio Capture of Musical Performance,” (with Morten Lindberg) Audio Engineering Society, McGill University, Montreal, March 2017, 45 minutes.
- 2016 “Immersive Audio Capture for 22.2 Multichannel Sound”, Audio Engineering Society, University of British Columbia, Vancouver, August 2016, 60 minutes.
- “Immersive Audio Capture for 22.2 Multichannel Sound” (with Bryan Martin), Symposium IX 3<sup>rd</sup> Edition, Society for Arts and Technology, Montreal, June 2016, 90 minutes.
- “Three-Dimensional Music Recording” (with Bryan Martin), as part of *Workshop on Three-dimensional Immersive Audio*, Centre for Interdisciplinary Research in Music Media and Technology, McGill University, April 2016, 45 minutes.
- “Three-dimensional recording techniques for classical, jazz, and pop/rock music,” Yamaha Corporation, March 2016, 120 minutes.
- “Three-dimensional recording techniques for classical, jazz, and pop/rock music,” Kyushu University, March 2016, 45 minutes.
- “Three-dimensional recording techniques for classical, jazz, and pop/rock music,” Tokyo University of the Arts, February 2016, 100 minutes.
- “Three-dimensional recording techniques for classical, jazz, and pop/rock music,” NHK Science and Technical Research Laboratories, February 2016, 120 minutes.
- 2015 “Three-Dimensional Recording Techniques for Classical Music,” Audio Engineering Society, Rochester Institute of Technology, November 30, 2015, 30 minutes
- “3D recording listening and evaluation,” Rochester Institute of Technology, November 30, 2015, 60 minutes

#### ADDITIONAL GUEST LECTURES

In addition to the invited lectures listed above, I have delivered guest lectures as part of the following graduate and undergraduate courses at McGill University: MUSR 629 *Technical Ear Training*; MUSR 670 *Recording Theory & Practice*; MUSR 692 *Music Production Workshop*; MUSR 691 *3D Audio Seminar*; MUSR 200 *Audio Recording Essentials*. Topics have included 3D audio production, stereo music production, and spatial hearing.

#### ACADEMIC and ADMINISTRATIVE EXPERIENCE

- Ongoing **Peer-Reviewer**, *Journal of the Audio Engineering Society* (2019), *Acoustic Science and Technology* (2019), *Audio Engineering Society Conferences*
- 2019 **Co-Chair**, “Recording Orchestral Music and 3D Audio: Challenges, Considerations, and Solutions,” *AES Convention 146*, Dublin, March 2019.
- 2018 **Chair**, *Workshop on Orchestral Music in the 21<sup>st</sup> Century: Composition, Performance, Capture, and Distribution*, Centre for Interdisciplinary Research in Music Media and Technology, February 2018.
- 2017 **Chair**, Paper Session: “Recording and Live Sound”, *AES Convention 143*, May 2017.
- 2015 **Chair**, *Workshop with Floyd Toole on sound reproduction*, Centre for Interdisciplinary Research in Music Media and Technology, April 2015

2014 - 2015      **Secretary**, AES 59th Conference on Sound Reinforcement Engineering and Technology,  
Organizing Committee

**AFFILIATIONS**      Audio Engineering Society  
Canadian Broadcasting Corporation  
Japan Society for Sonic Arts

**LANGUAGES**      English: native  
French: fluent  
Japanese: functional

**CERTIFICATIONS**      Dante I

**SOFTWARE**      Pro Tools; Reaper, Pyramix; FuzzMeasure; Izotope RX; Logic; SPAT Revolution;  
Dolby Atmos; Reaper; RME Totalmix; Max; Photoshop; InDesign; Microsoft Office;  
Google Workspace; Keynote; Mac and Windows operating system administration

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## **PROFESSIONAL AUDIO PRODUCTION CREDITS**

**Dory Hayley**, *i love evil* (2025)  
Producer, Recording, Editing, Mastering

**Standing Wave**, *SW/30 Live Tracks*  
Producer, Recording, Mixing

**The Walrus Lab**, *The Hidden Holocaust Papers, Episode 6* (2025)  
Technical Producer, Sound Engineer

**Alexander Weimann**, *Ad Libitum: The Art of Improvisation, Volume 2* (2024)  
Mixing and Mastering

**Sam Davidson**, *Passages* (2024)  
Producer, Recording, Mixing, Mastering

**Skim Milk** *Dry Ice* (2024)  
Producer, Recording, Mixing, Mastering

**Alexander Weimann** *A Prayer for Peace* (2024)  
Mastering

**Tokyo Geidai Special Wind Orchestra featuring Toshiyuki Honda** *Time To Fly* (2023)  
Recording Staff

**Jennifer Butler** *One More Way to See* (2023)  
Recording, Digital Editing

**Skim Milk** *SNIPS* (2023)  
Mastering, Bass, Guitar

**Takafumi Fujimoto** *Rebonds* (2023)  
Recording Staff

**Anthony Tan** *susurrus* (2023)  
Recording, Mixing and Mastering

**Standing Wave** *20C Re-Remix* (2022)  
Producer, Recording and Mixing (original material)

**Allegra Chamber Orchestra, Cyrena Luchkow-Huang, Rachel Mercer** *Mascarada* (2022)  
Recording Engineer

**Standing Wave** *20C Remix* (2021)  
Producer, Recording and Mixing  
Juno Award Nominee: Classical Album of the Year (Small Ensemble)

**Michael Fabro** *Tasting Notes* (2021)  
Producer, Recording and Mixing

**Allegra Chamber Orchestra** *FestivELLE* (2021)  
Recording and Mixing Engineer

**Vancouver Opera** *Carmen: Up Close and Personal* (2021)  
Recording Engineer

**Vancouver Symphony Orchestra** *2020-2021 Digital Season* (Fall 2020 – Summer 2021)  
Audio Producer and Recording Engineer  
(Producer, Recording Engineer, and Editor for 134 sessions of orchestral and chamber music recording)

**Angela Hewitt with the Victoria Symphony** *Virtual Season: Angela Hewitt Plays Bach* (2020)  
Recording and Mastering Engineer

**Vancouver Opera** *La Voix humaine* (2020)  
Mixing

**Anthony Tan** *my eyes open me* (2020)  
Mixing and Mastering

**Kate MacColl** *Somebody Else Take the Wheel* (2020)  
Recording, Mixing

**Little Chamber Music** *Human Shadows Etched in Stone* (2020)  
Recording and Mixing Engineer

**Vancouver Symphony Orchestra** *VSO@Home Digital Performances – Beethoven: Symphony No. 5*  
Audio Engineer

**Vancouver Symphony Orchestra** *VSO@Home Digital Performances – BeethovenFest Virtual Finale*  
Audio Engineer

**CBC Podcasts** *They and Us* (2020)  
Mixer  
Radio Television Digital News Association (Canada) Award Winner: Best Local Podcast  
Webster Award Finalist: Best Feature/Enterprise Reporting – Radio/Podcast

**CBC Podcasts** *Other People's Problems, Season 3* (2020)  
Audio Restoration, Mixer

**CBC Podcasts** *Killers: Jpod on the brink* (2019)  
Mixer  
Radio Television Digital News Association (Canada) Awards Winner: Excellence in Sound; Excellence in Innovation

**Anthony Tan** *Integration Ritual* (2019)  
Engineer



**Jane Coop** *Three Keyboard Masters* (2019)  
Recording Engineer

**Timothy Chooi** *“Impressions” Canadian Showpieces* (2018)  
Recording Engineer

**Isang Yun** *Sunrise Falling* (2018)  
Editing

**Saxophilia** *Saxophilia* (2017)  
Engineering

**Standing Wave** *New Wave* (2017)  
Producer, Recording, Editing, Mixing, Mastering  
WCMA Award Winner: Classical Artist/Ensemble of the Year (2017)

**Skim Milk** *Fingerprints* (2017)  
Bass, Mastering

**Antoine Joubert** *piano solo: fauré scriabine janáček liszt* (2017)  
Editing

**Skim Milk** *The Monarch Sessions* (2017)  
Producer, Recording, Mixing, Electric Guitar

**Phoenix Chamber Choir** *When The Earth Stands Still* (2017)  
Editing, Mastering

**Anthony Tan** *Anesthesia* (2017)  
Engineer

**Trio Verlaine** *Ariadne’s Legacy* (2016)  
Producer, Engineer

**Phoenix Chamber Choir** *Why The Caged Bird Sings* (2016)  
Editing

**UBC University Singers** *Earth Grown Old* (2016)  
Recording Engineer, Editing

**Matt Haimovitz** *Overtures To Bach* (2016)  
Editing  
Juno Award Nominee: Classical Album of the Year, Solo or Chamber

**Monty Adkins & Terri Hron** *Lépidoptères* (2016)  
Sound Engineer, Liner Notes  
Prix Opus Nominee

**Couloir** *Maxwell Muhly & Couloir* (2016)  
Producer, Engineer  
WCMA Award Winner: Classical Artist/Ensemble of the Year (2016)

**Turning Point Ensemble** *Thirst* (2015)  
Recording Engineer, Digital Editing  
Juno Award Nominee: Classical Composition of the Year  
WCMA Award Nominee: Classical Artist/Ensemble of the Year (2016)

**Tafelmusik Baroque Orchestra** *Best of French Baroque Music* (2015)  
Engineer

**Skim Milk** *Ghosts of Jazz* (2015)  
Executive Producer, Mastering, Bass

**Phoenix Chamber Choir** *Mid-Winter Songs / Un Soir de Neige* (2014)  
Recording Engineer, Digital Editing

**Trio Verlaine** *Six Departures* (2014)  
Producer, Engineer

**Pacific Sound Collective** *Mai 68* (2014)  
Producer, Recording, Mixing

**Skim Milk** *Skim Milk* (2014)  
Mastering, Bass

**Stephen Chatman / UBC University Singers** *Magnificat: Songs of Reflection* (2013)  
Recording Engineer, Digital Editing  
Juno Award Nominee: Classical Composition of the Year

**Couloir** *Wine Dark Sea* (2013)  
Producer, Engineer

**aalt** *Restless EP* (2013)  
Producer, Recording, Mixing, Performer

**Shauna Rolston / Heather Schmidt** *Icicles of Fire* (2013)  
Digital Editing

**Sam Davidson** *The Case for Space* (2013)  
Producer, Recording, Mixing

**Ig Henneman Sextet** *Live @ The Ironworks Vancouver* (2012)  
Recording, Editing, Mixing, Mastering

**Christopher Costanza** *The Cello Suites of J. S. Bach* (2012)  
Recording Engineer

**Little Mountain Brass Band** *Pastime with Good Company* (2012)  
Producer, Engineer

**Clemens Purner (Director) / Edo Van Breemen (Music)** *Panta Rhei* (2012)  
Recording, Mixing

**John Bolton (Producer/Director) / Tobin Stokes (Music)** *The Making of Fallujah* (2012)  
Location Sound Recordist, Mixing

**Tafelmusik Baroque Orchestra** *The Galileo Project* (2012)  
Engineer  
Juno Award Nominee: Classical Album of the Year, Large Ensemble

**John Oliver** *Forging Utopia* (2012)  
Digital Editing, Mastering  
WCMA Award Winner: Classical Composition of the Year

**The Classic Strings Duo** *The Classic Strings Duo* (2012)  
Digital Editing, Mastering

**Brasstronaut** *Opportunity EP* (2011)  
Recording

**Chor Leoni** *Yuletide Fires 2* (2011)  
Producer, Editing

**Resorts** *EP01* (2011)  
Mixing

**Mina Shum (Director) / Standing Wave (Music)** *All* (2011)  
Recording, Editing, Mixing

**Ballet BC / Turning Point Ensemble** *25th Anniversary Celebration* (2011)  
Sound Design, Music Producer, Recording, Editing, Mastering

**Contact** *Undercurrents* (2011)  
Mixing, Digital Editing  
WCMA Award Nominee: Classical Composition of the Year

**Mike Soviet** *Mental* (2011)  
Engineering, Guitar and Bass, Associate Producer

**Karl Schwonik Jazz Ensemble avec/with Rémi Bolduc** *1 + 4* (2011)  
Recording Engineer  
WCMA Award Nominee: Jazz Recording of the Year

**Tafelmusik Baroque Orchestra** *Music from the Galileo Project: Music Of The Spheres* (2010)  
Recording Engineer

**Anthony De Mare** *Speak! The Speaking-Singing Pianist* (2010)  
Assistant Engineer

**The NFYA Collection** *25 Years of New Music in New York* (2010)  
Assistant Engineer

**Brasstronaut** *Mount Chimaera* (2010)  
Producer, Recording, Mixing  
SOCAN Award Winner: Echo Songwriting Award  
Polaris Prize long-list

**Rainier Trio** *The Rainier Trio* (2010)  
Producer, Engineer

**Malcolm Aiken** *Paper Star* (2010)  
Producer, Recording, Mixing

**Mike Soviet** *Not Chill* (2010)  
Engineer

**Malcolm Aiken Band** *Live @ Whistler Music Fest Promotional Video* (2009)  
Recording, Mixing, Mastering

**Heather Bilodeau** *Sunday Afternoon* (2009)  
Recording, Mixing

**Mackenzie Jones Big Band** *The Reach Around* (2009)  
Recording, Mixing, Mastering, Session Producer

**Mathias Maute / Montreal Baroque Festival Orchestra** *Versailles Voodoo* (2009)  
Music Recording

**Stefania Neonato** *Clementi Grand Piano in Concert* (2009)  
Recording

**The Banff Centre** *BISQC Promotional Video* (2009)  
Final Sound Mix

**Stepper** *Way Out* (2009)  
Additional Recording

**The Banff Centre** *The Twelve Days of Christmas* (2009)  
Sound Mix

**aalt** *Explosive Secret Meeting* (2008)  
Producer, Recording, Mixing, Performer, Composer

**The Banff Centre** *Deck The Halls (E Greeting)* (2008)  
Recording

**The Banff Centre** *Centre Pieces in Jazz and Creative Music ~ 2007* (2008)  
Recording (Tracks 1, 3, 4, 6, 14)

**Princess Productions** *Collection 6: 11: 07 [Soundtrack]* (2007)  
Recording, Mixing, Bass

**Joe Miller** *Worn Out Joke* (2007)  
Fender Bass, Electric Guitar, Piano, B3 Organ, Production and Arranging Consultant

**Panacea** *Panacea* (2007)  
Recording, Mixing

**Mackenzie Jones Big Band** *Swampkratch* (2006)  
Recording, Mixing, Co-Producer

**Stephen Chatman** *Proud Music Of The Storm* (2004)  
Performer

**UBC University Singers** *A Vancouver Christmas* (2004)  
Performer

**UBC Symphony Orchestra** *The Dream of Gerontius* (2002)  
Performer

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## SELECTED CBC NATIONAL BROADCAST CREDITS

**Sebastian Gaskin / Caleigh Cardinal** (Fall 2024)  
Mixing Engineer

**Ema Nikolovska and Charles Richard-Hamelin** (Spring 2024)  
Producer, Recording Engineer

**The Debaters** (2019 - 2021)  
Technical Production

“When is Enough Enough?” (2019)  
Live Broadcast Mix  
Webster Award Winner: Excellence in Diversity & Inclusion Reporting

**The Harpoonist and the Axe Murderer** (Summer 2019)  
Recording Engineer

**Jose Franch-Ballester and Jane Coop** (Spring 2019)  
Recording Engineer

**Tegan and Sara** - CBC Music Fest 2014 (Summer 2014)  
Mixing Engineer

**Dan Mangan** - CBC Music Fest 2014 (Summer 2014)  
Mixing Engineer

**Arkells** - CBC Music Fest 2014 (Summer 2014)  
Mixing Engineer

**Pacific Baroque Orchestra** (Winter 2013)  
Recording Engineer

**National Youth Orchestra of Canada** (Summer 2013)  
Recording Engineer

**Vancouver Symphony Orchestra** (Numerous concerts 2011 to 2014)  
Recording Engineer

**CBC Toque Sessions 2013** (Bee Keepers, Dear Rouge) (Winter 2013)  
Recording Engineer

**Joshua Hopkins** (Winter 2013)  
Recording Engineer

**Marc Andre-Hamelin** (Fall 2012)  
Recording Engineer

**James Parker** (Summer 2012)  
Recording Engineer

**Tony Wilson: A Day's Life Band** (Spring 2012)  
Mixing Engineer

**Turning Point Ensemble** (Spring 2012)  
Recording Engineer

**London Haydn Quartet** (Winter 2012)  
Recording Engineer

**Vancouver Opera** – Romeo et Juliette (Winter 2012)  
Recording Engineer

**Pacific Opera Victoria** – Mary's Wedding (Fall 2011)  
Recording Engineer

## SELECTED PROFESSIONAL LIVE SOUND CREDITS

**University of British Columbia - University Singers** (April 2024)  
Immersive Sound Design

**Vancouver Symphony Orchestra** (2019-2020)  
Audio Producer/Sound Design for amplified orchestral concerts

**Standing Wave** (Winter 2009 – present)  
Sound Design and Archival Recording for various concerts/premieres

**Steve Reich (Composer) / Vicky Chow (Piano)** *Piano Counterpoint (Flexible Version World Premiere)*  
(January 2013)  
Multi-Spatial Sound Design, Live Mix

**Little Chamber Music Series That Could** (Fall 2013)  
Live Sound and Archival Recording for series re-launch, including World and Vancouver premieres of music by Nicole Lizée

**The Chan Centre for the Performing Arts** (Fall 2009 – Summer 2014)  
Monitor mix for various concerts, including: Taj Mahal, Angélique Kidjo, Chucho Valdés, Pablo Ziegler and Regina Carter, Simon Shaheen, Zakir Hussain, Kronos Quartet

**Music On Main** (Spring 2010 – Spring 2014)  
Front of House and Monitor mixes, Archival Recording for various concerts, including:  
Gabriel Kahane, Tanya Tagaq, Richard Reed Parry, Barry Truax, Calder Quartet, Giorgio Magnanensi

**Montreal Baroque Festival**, Montreal, QC Summer 2008  
FOH/monitor mix: Pandit Sharda Sahai, sound reinforcement set-up: Traversée Miraculeuse, recording engineer: Versailles Vaudou!

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## SELECTED PERFORMANCE CREDITS

**Music on Main, Modulus Festival**, Laura Bowler, “FFF”, Live Electronics (November 2018)

**Spacemelt @ Telus Gardens** (Featuring Kevin Stea and Jose Xtravaganza), Guitar (August 2016)

**Music on Main, Modulus Festival**, Saariaho, “Lohn”, Live Electronics (September 2012)

**Contrasts Chamber Music Festival**, Black Math Trio (Guitar) and Festival Choir (Tenor) (July 2005)

**Gallery Singers**, Tenor Section and Soloist (Sept. 2004 – June 2005)

**University of British Columbia - University Singers**, Tenor Section and Soloist (Sept. 2000 – May 2004)

**Various little-known rock and jazz groups**, Guitar, Bass and Vocals (1998 – present)