

## Dr. 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

### GRANTS and AWARDS

- 2025 Canada Council for the Arts Concept to Realization Grant
- 2021-2023 FY2021 JSPS Postdoctoral Fellowship for Research in Japan  
(Japan Society for the Promotion of Science)
- 2015 - 2018 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

### ACADEMIC APPOINTMENTS and TEACHING EXPERIENCE

- 2025 - 2026 **Sessional Lecturer**, University of British Columbia, Vancouver
- Course Title: Music Technology Capstone Project (Fall)
  - Supervision of student(s) capstone project(s) for minor in Applied Music Technology
  - 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 - 2026 **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
  - Optimization of Computer Music Studio multichannel audio facilities
- 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
- 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 immersive audio production

- 2018 **Course Instructor**, McGill University, Montreal  
 • Course Title: Audio Production Essentials (Winter)  
 • Co-developed and taught undergraduate survey course on audio production
- 2017 – 2018 **Course Instructor**, McGill University, Montreal  
 • Course Title: Introduction to Sound Recording (Fall/Winter)  
 • Co-teaching undergraduate 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

## 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 7–15 for professional credits
- 2026 **Associate Producer/Technician**, Radio-Canada, Vancouver  
 • Technical producer for French-language radio show *Phare Ouest*. On-air audio mixing and editing, music supervision, sound design.
- 2023 – Present **Recording Engineer**, CBC, 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.

#### **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

#### **SELECTED ARTISTIC OUTPUT/PERSONAL DISCOGRAPHY**

- 2025/26 “Unrealistic Spaces” (w/ Sam Davidson and Yujin Honda) – 3D electroacoustic music, 12 channels  
 2022 “Mercury Light” – experimental 3D pop/rock, 27 channels  
 2018 “Working” – experimental 3D pop/rock, 22 channels  
 2015 “Supermoon” – experimental 3D pop/rock, 22 channels  
 2013 “Restless” (w/ aalt): alternative pop, stereo  
 2009 “Explosive Secret Meeting” (w/ aalt): alternative pop, stereo  
 2008 “Normy, Volume 1” (as Wilberforce 2167): sample-based electronic music “mixtape”  
 2003 “Heavy Air” – amplified tenor saxophone and live signal processing (mono)  
 2003 “Black Math Trio” (w/ Black Math Trio) – jazz fusion, stereo  
 1998 “Getting to Know You” (w/ Scrambled Swan): experimental/electronic/ lo-fi album

#### **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 Hisarlı 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.

#### **INVITED PRESENTATIONS and LECTURES**

2025 "Unrealistic Spaces: 3D electroacoustic music recording demo," The Centre for Interdisciplinary Research in Music Media and Technology, Montreal, November 11, 2025, 1.5 hours.

"Techniques for Three-Dimensional Music Capture and Creation," University of Music and Performing Arts Vienna, Vienna, October 21, 2025, 2 hours.

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

#### **PROFESSIONAL/ACADEMIC SERVICE**

- 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  
Japan Society for Sonic Arts

#### **LANGUAGES**

English: native  
French: fluent  
Japanese: functional

#### **REGISTERED INVENTIONS**

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

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#### **PROFESSIONAL AUDIO PRODUCTION CREDITS**

**Unrealistic Spaces** *Unrealistic Spaces* (2026)

Producer, Recording, Mixing, Co-composer, Spatial Sound Design, Electronics, Bass

**Niobe Thompson (Director) / Jonathan Kawchuck (Music)** *Frozen in Time* (2025)

Recording Engineer

**Standing Wave**, *in an archipelago* (2025)

Producer, Recording, Mixing

Juno Award Nominee: Classical Album of the Year (Small Ensemble)

**Alexander Weimann**, *Canavian Variations* (2025)

Mastering

**Dory Hayley**, *i love evil* (2025)

Producer, Recording, Editing, Mastering

**Standing Wave**, *SW/30 Live Tracks* (2025)

Producer, Recording, Mixing

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

**Rie Hiroe**, *Preghiera: Franz Liszt Organ Works* (2024)  
Recording Assistant

**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: J pod 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 Song writing 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**

**Come Towards the Fire 2025** (Fall 2025)  
Recording Engineer

**Missy D** (Summer 2025)  
Recording and Mixing

**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**

**DigiBC** (October 2025)  
Spatial Audio Design and Optimization

**re:Naissance Opera** (November 2024)  
Live mixing

**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!

## **SELECTED PERFORMANCE CREDITS**

**Unrealistic Spaces** (with Sam Davidson and Yujin Honda), Spatial Sound Design, Bass (November 2025)

**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)