

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 HONOURS and AWARDS

- 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
- 2007 Audio Engineering Society Student Recording 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 6–13 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

- 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 **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:

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 *13th 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 61st 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 4th, 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 3rd 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 21st 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: intermediate

CERTIFICATIONS Dante I

SOFTWARE Pro Tools; Pyramix; FuzzMeasure; Izotope RX; Logic; SPAT Revolution; Dolby Atmos Renderer; Dolby Lake; Music Scope; RME Totalmix; Spectrafoo; Max; Photoshop; InDesign; Microsoft Office; Open Office; Google apps; Keynote; Mac and Windows operating system administration

PROFESSIONAL AUDIO PRODUCTION CREDITS

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

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) Multiple 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

Sauna 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

SELECTED CBC NATIONAL BROADCAST CREDITS

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

The Debaters (2019 - 2021)
Technical Production

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 – Fall 2021)
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, James Hill, 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

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)