education

	Victoria University of Wellington, New Zealand [graduated 2018]
	Focus: Sonic Arts and Engineering
doctor of philosophy	*Advisors*: Prof. Dale Carnegie, Dean Faculty of Engineering
	Dr. Jim Murphy, Lecturer
	Research: music performance + music technology
	• Victoria Doctoral Scholarship
	• Victoria Doctoral Submission Scholarship

	Arizona State University, USA [graduated 2012]
	Focus: Media, Arts, and Science
master of arts	*Research*: custom, interactive musical biofeedback and user interface design
	• NSF Integrative Graduate Education and Research Traineeship (IGERT) Fellowship
	• Founder and Director of Laptop Orchestra of Arizona State (LOrkAS)

	Stanford University, USA [graduated 2008]
	Focus: Music, Science, Technology
master of arts	*Advisor*: Dr. Julius Smith, Professor
	Research: sound design and digital audio signal processing
	• Charter member of the Stanford Laptop Orchestra (SLOrk) and Mobile Phone Orchestra (MoPho)

	University of Miami, USA [graduated 2005]
bachelor of music	*Majors*: Music Engineering Technology, Flute Performance, and Computer Science
	Advisors: Ken Pohlmann, Director of Music Engineering Technology
	Christine Nield-Capote, Adjunct Professor

audio technology experience

research assistant	**School of Arts, Media + Engineering, Arizona State University** • Under the NSF IGERT Doctoral Fellowship, autonomously researched and designed a real-time, customizable sound design software toolkit for an interactive biofeedback system for stroke rehabilitation; contributed to professional publications; founded and directed an experimental sonic performing group; collaborated on interactive media installations.	*Aug 2009 – Aug 2012*
research assistant	**CCRMA, Stanford University** • Collaboratively researched and developed a custom audio/visual biofeedback software system for breathing regulation system. Two concurrent projects: 1) a museum piece shown in January 2009 and 2) a biofeedback device for the Stanford medical department.	*Oct 2008 – July 2009*
graduate intern	**General Motors, Inc.** • Independently created and delivered the prototype internal sound design for the Chevrolet Volt, a hybrid electric vehicle, which included the unique experience of weekly meetings with a Vice President of GM and the Volt development team.	*July 2008 – Oct 2008*
first sound engineer	**Recording Services, University of Miami** • Involved in many aspects of recording engineering and live sound reinforcement, including operation of the sound system for live sound concerts, concert organization, maintenance of sound equipment, interacting with the artists and training peers.	*Aug 2001 – May 2004*

technical experience

sound designer	• Intel Corporation (2015-2016) • Enhanced Vehicle Acoustics, Inc. (2009) • General Motors (2008)
project management	• Sonic Engineering Showcase organization and management. (2013-2014) • Laptop Orchestra of Arizona State promotions, establishment of venues, directing ensembles, grant writing, and organization of performances. (2010-2012)
multimedia installations	• Experienced in audio/visual equipment setup for conferences, presentations, and performances • Extensive experience with both live and studio sound mixing and audio system management
computer	• Development: Java, C/C++, Objective-C, Python, Cocoa, Audio Unit, HTML, CSS, version control • Audio: ChucK, ProTools, Logic Pro, Ableton Live, Max/MSP/Jitter, PureData, SuperCollider, Ardour, Audacity • Software: Windows, Linux, UNIX, and Mac operating systems; MathCAD; Matlab; XCode; Fritzing; Solidworks • Audio equipment: Mackie and Euphonix System 5; variety of microphones and outboard audio gear

teaching and administrative experience

Graduate and Equity Coordinator at Victoria University of Wellington	*Jan 2018 to present*
Research Awards Coordinator at Victoria University of Wellington	*April 2017 – Dec 2017*
Tutor at Victoria University of Wellington • Introduction to Music Technology (100-level, music) • Introduction to Computer Programming Design (100-level, engineering) • Computer Music Programming (200-level, music) • Data Acquisition (200-level, engineering) • Interface Design for Live Electronics (300-level, music) • Advanced Sonic Arts Projects (300-level, music) • Introduction to Digital Signal Processing (300-level, engineering)	*July 2013 – July 2017*
Administrator, Tutor, and SAT Teacher at Sylvan Learning Center	*Feb 2006 - Sept 2007*
Professional Flute Instructor	*Jan 1999 – Dec 2009*

sonic art exhibitions and performances

LOrkAS	• Phoenix eXperimental Arts Fest • ASU School of Arts, Media + Engineering Digital Culture Initiative Showcase • ASU Herberger Institute for Design and the Arts Dean's Council for Excellence • Phoenix First Friday Art Showcase & PHX:Fringe Fest • Inaugural Phoenix Maker Faire • World Premieres of Original Compositions, featuring Perry Cook • Emerge Conference @ ASU • Play! Festival	*Aug 2010 – Aug 2012*
Thrii	• Incubator 2010 workshop @ ASU • ASU School of Arts, Media + Engineering Digital Culture Initiative Showcase • ASU Herberger Institute for Design and the Arts Dean's Council for Excellence	*2010, 2011*

Vernal Canopy	• CCRMA Open House 2009	*Summer 2009*
Catch Your Breath	• Pasadena Museum of California Art • Data+Art: Science and Art in the Age of Information Exhibition	*2009*

volunteer experience

Outreach Volunteer for the School of Engineering and Computer Science	*Oct 2013 - Present*
Sennheiser - Internal Promotional Video Actress	*Summer 2009*
Imagine Research - Metadata Classification Engineer	*Summer 2009*
Enhanced Vehicle Acoustics - Sound Designer	*Oct 2008 - Jun 2009*

professional memberships

ACM MM	Student member of ACM Multimedia
AES	Student member of Audio Engineering Society • University of Miami chapter - Member; Stanford University chapter – Vice President
ARRL	Member of American Radio Relay League
ASAE	Student member of American Society of Acoustic Ecology
FFA	Student member of Florida Flute Association
IEEE	Student member of Institute of Electrical and Electronics Engineers
ΦΚΦ	Lifetime member of Phi Kappa Phi Honor Society
NFA	Lifetime member of National Flute Association
SWE	Student member of Society of Women Engineers

awards, fellowships, grants, scholarships

- PGSA 2018 Professional Staff Award
- Faculty Research Grant
- Research and Innovation Grant
- ICMA Student Scholarship
- Victoria Doctoral Scholarship
- NSF IGERT Doctoral Fellowship
- Dean's List Honor Roll
- Provost's List Honor Roll
- Constance Weldon Scholarship
- Bertha Foster Scholarship
- Florence Pick Scholarship
- Florida Bright Futures Award
- Girl Scouts of America: Silver Award

conference, symposium, and festival participation

ICMC	International Computer Music Conference - Student Volunteer, Conference Attendee	*2004, 2014*
NIME	New Interfaces for Music Expression - Student Volunteer, Conference Attendee	*2009, 2010, 2012*
Fringe Fest	PHX: Fringe Festival - Student Volunteer, Conference Attendee	*2010*

GPSA	Graduate and Professional Student Association Leadership Event - Conference Attendee	*2009*
MATB	Symposium on Music and the Brain - Student Volunteer, Conference Attendee	*2008, 2009*
Maker Faire	Maker Faire Phoenix - Performer, Presenter, Student Volunteer Maker Faire Bay Area - Performer, Presenter, Student Volunteer	*2011* *2008, 2009*
AES	Audio Engineering Society Convention (San Francisco) - Student Volunteer, Student Attendee Audio Engineering Society Convention (New York) – Student Volunteer, Student Attendee	*2006, 2008* *2005*

professional achievements

Amateur Radio	Licensed Amateur Radio operator: KE4QXL
Teaching Certification	Completed substitute teacher training

publication participation

ACMC	Reviewer for Australasian Computer Music Conference	*2015, 2016*
NIME	Scientific Program Committee and Reviewer for International Conference on New Interfaces for Musical Expression	*2014 - 2019*
ISMIR	Reviewer for International Society for Music Information Retrieval Conference	*2012, 2016, 2017*
TAP	Reviewer for ACM Transactions on Applied Perception	*2012*
SLEO	Program Committee for Inaugural Symposium on Laptop Ensembles & Orchestras	*2011*
ICMC	Reviewer for International Computer Music Conference	*2008, 2009*

publications

D. Siwiak, D. A. Carnegie, J. Murphy, and A. Kapur, "Using Audio Onset Detection Algorithms," *Proceedings of Engineering New Zealand Conference (ENZCON)*, Christchurch, New Zealand, December 4 -7, 2017.

D. Siwiak, D. A. Carnegie, J. Murphy, and A. Kapur, "MetaFlute: A Gesture Capture System," *Proceedings of International Computer Music Conference (ICMC)*, Shanghai, China, September 2 - 5, 2017.

D. Siwiak, A. Kapur, and D. A. Carnegie, "Micro-timing as a Feature for Investigating Musicality," *Proceedings of International Symposium on Performance Science (ISPS)*, Kyoto, Japan. September 2 - 5, 2015.

D. Siwiak, "Designing an Interactive Sonic Media Environment for Stroke Rehabilitation," *Proceedings of Australasian Computer Music Conference (ACMC)*, Melbourne, Australia. July 9 - 11, 2014.

D. Siwiak, A. Kapur, and D. A. Carnegie, "Pitch Interval Detection and Classical Flute Pedagogy: An 'Elementary' Connection," *Proceedings of Australasian Computer Music Conference (ACMC)*, Melbourne, Australia, July 9 - 11, 2014.

D. Siwiak, A. Kapur, and D. A. Carnegie, "Music Technology's Influence on Flute Pedagogy: A Survey of their Intersection," *Proceedings of the International Computer Music Conference and Sound and Music Computing (ICMC/SMC)*, Athens, Greece, September 14 - 20, 2014.

D. Siwiak, "Laptop Orchestra of Arizona State: The Student Venture," *Proceedings of Inaugural Symposium for Laptop Ensembles and Orchestras (SLEO)*, Baton Rouge, Louisiana, April 14-17, 2012.

D. Siwiak, N. Lehrer, M. Baran, Y. Chen, M. Duff, T. Ingalls, and T. Rikakis, "A Home-based Adaptive Mixed Reality Rehabilitation System," *Proceedings of the ACM Multimedia International Conference (ACM MM)*, Scottsdale, Arizona, Nov 28 - Dec 1, 2011.

Baran, M., Lehrer, N., **D. Siwiak**, Y. Chen, M. Duff, T. Ingalls, and T. Rikakis, "Design of a Home-based Adaptive Mixed Reality Rehabilitation System for Stroke Survivors," *Proceedings of International IEEE EMBS Conference (IEEE EMBS)*, Boston, Massachusetts, Aug 30 - Sept 3, 2011.

D. Siwiak, *et al*. "Thrii". *Proceedings of the ACM Multimedia International Conference (ACM MM)*, Florence, Italy, Oct 25-29, 2010.

K. Headlee, T. Koziupa, and **D. Siwiak**, "Sonic Virtual Reality Game: How Does your Body Sound?" *Proceedings of the International Conference on New Interfaces for Musical Expression (NIME),* Sydney, Australia, June 15-18, 2010.

D. Siwiak, J. Berger, and Y. Yang, "Catch your Breath - Musical Biofeedback for Breathing Regulation," *Proceedings of the Audio Engineering Society International Convention (AES)*, New York, NY, Oct 9-12, 2009.

D. Siwiak, J. Berger, and Y. Yang, "Catch your Breath - Musical Biofeedback for Breathing Regulation," *Proceedings of the International Conference on New Interfaces for Musical Expression (NIME)*, Pittsburgh, PA, June 4-6, 2009.

D. Siwiak and F. James, "Designing Interior Audio Cues for Hybrid and Electric Vehicles," *Proceedings of the Audio Engineering Society International Conference (AES)*, Dearborne, MI, June 2-4, 2009.

Current Teaching and Research References:

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