

education

	Victoria University of Wellington	[in progress]
doctor of philosophy	<p><i>Focus:</i> Sonic Arts</p> <p><i>Advisors:</i> Prof. Dale Carnegie, Dean Faculty of Engineering Dr. Jim Murphy, Lecturer Dr. Ajay Kapur, Senior Lecturer</p> <p><i>Research:</i> music performance + music technology</p> <ul style="list-style-type: none"> Victoria Doctoral Scholarship 	
	Arizona State University	[graduated August 2012]
master of arts	<p><i>Focus:</i> Media, Arts, and Science</p> <p><i>Research:</i> custom, interactive musical biofeedback and user interface design</p> <ul style="list-style-type: none"> NSF Integrative Graduate Education and Research Traineeship (IGERT) Fellowship Founder and Director of Laptop Orchestra of Arizona State (LORkAS) 	
	Stanford University	[graduated June 2008]
master of arts	<p><i>Focus:</i> Music, Science, Technology</p> <p><i>Advisor:</i> Dr. Julius Smith, professor</p> <p><i>Research:</i> sound design and digital audio signal processing</p> <ul style="list-style-type: none"> Charter member of the Stanford Laptop Orchestra (SLORk) and Mobile Phone Orchestra (MoPho) 	
	University of Miami	[graduated May 2005]
bachelor of music	<p><i>Majors:</i> Music Engineering Technology, Flute Performance, and Computer Science</p> <p><i>Advisors:</i> Ken Pohlmann, Director of Music Engineering Technology Christine Nield-Capote, Adjunct Professor</p>	

audio technology experience

	School of Arts, Media + Engineering, Arizona State University	
research assistant	<ul style="list-style-type: none"> 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
	CCRMA, Stanford University	
research assistant	<ul style="list-style-type: none"> 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
	General Motors, Inc.	
graduate intern	<ul style="list-style-type: none"> 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
	Recording Services, University of Miami	
first sound engineer	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none">• Intel Corporation (2015-2016)• Enhanced Vehicle Acoustics, Inc. (2009)• General Motors (2008)
project management	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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, Sonic Foundry Suite• 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

Research Awards Coordinator at Victoria University of Wellington	<i>April 2017 - Present</i>
Tutor at Victoria University of Wellington	
<ul style="list-style-type: none">• 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)	<i>July 2013 - July 2017</i>
Administrator, Tutor, and SAT Teacher at Sylvan Learning Center	<i>Feb 2006 - Sept 2007</i>
Professional Flute Instructor	<i>Jan 1999 - Present</i>

sonic art exhibitions and performances

LOrkAS	<ul style="list-style-type: none">• 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	<i>Aug 2010 - Aug 2012</i>
Thrii	<ul style="list-style-type: none">• 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	<i>2010, 2011</i>
Vernal Canopy	<ul style="list-style-type: none">• CCRMA Open House 2009	<i>Summer 2009</i>
Catch Your Breath	<ul style="list-style-type: none">• Pasadena Museum of California Art<ul style="list-style-type: none">• Data+Art: Science and Art in the Age of Information Exhibition	<i>2009</i>

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 <ul style="list-style-type: none">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
$\Phi K \Phi$	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

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| <ul style="list-style-type: none">Faculty Research GrantResearch and Innovation GrantICMA Student ScholarshipVictoria Doctoral ScholarshipNSF IGERT Doctoral FellowshipDean's List Honor Roll | <ul style="list-style-type: none">Provost's List Honor RollConstance Weldon ScholarshipBertha Foster ScholarshipFlorence Pick ScholarshipFlorida Bright Futures AwardGirl Scouts of America: Silver Award |
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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

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

publications

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.