

Education

- Doctorate in Computer Science, 2017, University of Paris-Saclay, Paris, France.
 - Advisors: Stéphane Huot, Brian FG Katz
- Masters in Music Technology, 2012, New York University, New York, NY.
 - Advisor: Agnieszka Roginska
- Bachelors in Electrical and Computer Engineering, 2010, University of Rochester., Rochester, NY.

Work Experience

- **Associate Teaching Professor, Director of Undergraduate Programs, Program Coordinator - Music Technology**, present, North Carolina State University, Department of Performing Arts and Technology, Raleigh, NC, USA.
- **Lecturer in Music Engineering**, August 2022-May 2024, University of Miami, Frost School of Music, Coral Gables, FL, USA.
- **Staff Engineering Scientist**, July 2022-October 2024, Nielsen, Fort Lauderdale, FL, USA.
- **Lead Audio R&D Engineer**, January 2018-June 2022, Magic Leap, Fort Lauderdale, FL, USA.
- **Ph.D Researcher**, June 2013 - October 2017, Inria Lille-Nord Europe & CNRS LIMSI, Lille & Paris, France.
- **Graduate Research Assistant**, August 2011 - December 2012, New York University, New York, NY, USA.
- **Graduate Research Intern**, July 2012 - August 2012, Army Research Lab, Aberdeen Proving Grounds, MD, USA.

Publications

[Constructing an Instructional Mixed-Use Studio](#); Mathew, Justin; Benkert, Stuart; North Carolina State University; North Carolina State University; Express Paper 361 at the 159th Audio Engineering Society Convention; Long Beach, CA, 2025

[Near-field audio rendering](#), RS Audfray, JM Jot, SC Dicker, MB Hertensteiner, JD Mathew, AA Tajik, et. al, US Patent App. 18/761,089

[Physics-based audio and haptic synthesis](#), CN Leider, JD Mathew, MZ Land, BI Wood, JS Lee, AA Tajik, JM Jot
US Patent App. 18/649,778

[Measuring Auditory Localization Potential on XR Devices](#), JD Mathew, M Pensko, D Cortes, M Hertensteiner
Audio Engineering Society Conference: AES International Conference on AVAR, 2022

[Quantifying Localization Potential using Interaural Transfer Function](#), JD Mathew, L Januszkiewicz, M Pensko, M Hertensteiner, R Audfray, Audio Engineering Society Convention 151, 2021

[Comparison of spatial and temporal interaction techniques for 3D audio trajectory authoring](#), JD Mathew, S Huot, BFG Katz, Journal on Multimodal User Interfaces 14 (1), 83-100, 2020

[Subjective Performance Criteria for Mixed-Reality Immersive Audio](#)

JM Jot, R Audfray, J Mathew, D Mauney, PROCEEDINGS of the 23rd International Congress on Acoustics ,
Universitätsbibliothek der RWTH Aachen, 2019

[Un cadre de conception pour les interfaces utilisateur des outils de production audio 3D](#)

J Mathew, Doctoral dissertation, Université Paris-Saclay, Inria Lille-Norde Europe, LIMSI-CNRS, 2017

[Survey and implications for the design of new 3D audio production and authoring tools](#)

JD Mathew, S Huot, BFG Katz, Journal on Multimodal User Interfaces 11, 277-287, 2017

[A morphological analysis of audio objects and their control methods for 3d audio](#)

J Mathew, S Huot, A Blum, NIME 2014-14th International Conference on New Interfaces for Musical Expression, 2014

[High resolution radiation pattern measurements of a grand piano-The effect of attack velocity](#)

A Roginska, JD Mathew, J Anderson, AU Case, Proceedings of Meetings on Acoustics 19 (1), 2013

[Electric guitar-A blank canvas for timbre and tone](#)

AU Case, A Roginska, JD Mathew, J Anderson, Proceedings of Meetings on Acoustics 19 (1), 2013

[Radiation Pattern Differences between Electric Guitar Amplifiers](#)

J Mathew, S Blackmore, Audio Engineering Society Convention 134, 2013

[Measurement and analysis of the spectral directivity of an electric guitar amplifier: Vertical plane](#)

A Roginska, J Mathew, A Madden, J Anderson, AU Case, Audio Engineering Society Convention 133, 2012

Honors, Awards, and Fellowships

- NC State University DSA Seed Grant, 2024 - AI-powered feature analysis and categorization of musician performances and technique
- MITACS-Inria Global Research Award, 2015 - McGill University, Montreal, Quebec, CA