U.S. Citizen

https://smehdizadeh.github.io/

EDUCATION



University of Colorado Boulder

Boulder, CO

Ph.D. in Creative Technology & Design, Neuroscience, Cognitive Science

May 2026

- ATLAS Institute, Brain Music Lab
- GPA: 4.00 / 4.00



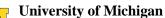
Georgia Institute of Technology

Atlanta, GA Dec 2021

M.S. in Music Technology

Thesis: Using Music to Modulate Emotional Memory

■ GPA: 4.00 / 4.00



Ann Arbor, MI

Apr 2018

B.S.E. in Electrical Engineering, Music Minor

■ GPA: 3.35 / 4.00

Concentration: analog/digital signal processing, analog circuits, interactive musical interfaces

PROFESSIONAL EXPERIENCE



Microsoft Research

Research Intern, Brain Computer Interfaces

Redmond, WA June – Sept 2022

- Designed a human-subjects experiment and developed interactive stimulus presentation interface using PsychoPy.
- Collected behavioral and physiological (32-ch EEG and eye tracking) data with Lab Streaming Layer (LSL).
- Conducted statistical analysis and hypothesis testing of participant responses, EEG
 (ERPs), and eye tracking (pupil dilation) using Python MNE and PANDAS libraries.
- Published results as a full conference paper at EMBC '23.



Georgia Institute of Technology, School of Music

Graduate Research Assistant, Brain Music Lab

Atlanta, GA

Jan 2020 – June 2022

- Developed interactive stimulus (audio, text, animated visuals) presentation scripts using PsychoPy and LSL.
- Designed and conducted human-subjects research to study interactions of music, mood, and memory.
- Performed signal processing and statistical analysis of multimodal datasets, including physiological (EEG, fMRI, ECG, respiration) data.



Mitsubishi Electric Automotive America

Northville, MI

Audio Engineer, Advanced Development

June 2018 – Jan 2020

- Managed custom interior electrical and mechanical modification of Consumer Electronics Show demo vehicle.
- Performed ITU-T hands-free parameter tuning for infotainment production projects.
- Communicated with customers, 3rd party suppliers, and team members locally and internationally.

CONFERENCES & PUBLICATIONS

(In review) Ren, Y., **Mehdizadeh, S. K.**, Brown, T. I., & Leslie, G. (2023). Affective Music During Episodic Memory Recollection Modulates Subsequent False Emotional Memory Traces: An fMRI Study. *Cognitive, Affective, & Behavioral Neuroscience*.

Mehdizadeh, S. K., Cutrell, E., Winters, R. M., Djuric, N., Cheng, Y., Tashev, I. J., & Wang, Y. T. (2023). EEG and Eye-Tracking Error-Related Responses During Predictive Text Interactions: A BCI Case Study. *45th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC '23)*, July 24-27, Sydney, Australia. https://doi.org/10.1109/EMBC40787.2023.10340598

Mehdizadeh, S. K., & Leslie, G. (2023). The Physiology of Musical Preference: A Secondary Analysis of the *Study Forrest* Dataset. *Music Perception*, 40(5), 395-409. https://doi.org/10.1525/mp.2023.40.5.395

Mehdizadeh, S. K., Ren, Y., Brown, T. I., & Leslie, G. (2022). Using Music to Modulate Human Emotional Memory. 2022 Biennial Meeting of the Society of Music Perception and Cognition (SMPC '22), August 4-7, Portland, OR, USA.

Roque, T. R., Rajagopalan, N., Jain, S., **Mehdizadeh, S. K.**, & Leslie, G. (2022). Multimodal, Musical Hyperscanning to Promote Empathy in HCI. *Empathy-Centric Design At Scale Workshop at CHI* 2022, April 26, 2022, Virtual Event.

Mehdizadeh, S. K., & Leslie, G. (2021). Novel Methodologies for Secondary Analyses of Physiological and Musical Preference Data. *International Conference on Music Perception and Cognition (ICMPC '16)*, July 28-31, Virtual Meeting.

EXHIBITIONS & PERFORMANCES

"Idiophone: A Resonant Sound Installation," as part of MediaLive: Technology as Healing,

Oct 2023 – Jan 2024

Boulder Museum of Contemporary Art (Boulder, Colorado).

"Global Pandemic" (An EEG Biofeedback Performance Piece), Georgia Institute of Technology School of Music (Atlanta, Georgia).

Dec 2022

AWARDS

Center for Advanced Brain Imaging MRI seed grant recipient (*Using Music to Modulate Emotional Memory*)

Apr 2021

• Winner of 2021 Moog Music Hackathon (*Magnebacus*)

Feb 2021

SKILLS

Computer Applications

- MATLAB, C/C++, Python, JUCE, Visual Studio, Minitab, SPSS, R
- Ableton, Logic, Reaper, MaxMSP, ChucK
- Microsoft Office (Word, Excel, PowerPoint)

Electronic Test/Measurement Equipment

Digital Multimeter, Oscilloscope, Function Generator

Languages

• Fluent in Greek, moderate knowledge of Spanish

Research & Experimental Design

- ECG, PPG, respiration, EMG, EEG, temperature, GSR, fMRI, eye tracking
- PsychoPy, Lab streaming layer (LSL), MNE, AFNI, EEG Lab, SPM12, OpenBCI

Design, Fabrication & Prototyping

- Basic shop tools, Mill, Lathe, Laser Cutting, 3D Printing, Soldering, Arduino, Raspberry Pi
- PCB design (Eagle, Altium), CAD (SolidWorks, AutoCAD)