Garrett Eckl
Musician, Audio Programmer, Educator
12 Chippenham Dr, Penfield, NY 14526
www.garretteckl.com
garrettecklmusic@gmail.com
(585) 643-0400

Education

Peabody Conservatory, Johns Hopkins University, Baltimore, MD   2022
M.M. Computer Music – Research and Technology Track, **GPA: 3.9**
Sam Pluta, Geoffrey Wright, Norah Lorway

San Diego State University, San Diego, CA   2020
B.M. Music Recording Technology and Audio Design, **GPA: 3.8**
Joseph Waters, Chris Warren, Nakul Tiruviluamala

Monroe Community College, Rochester, NY   2018
A.S. in Liberal Arts, **GPA: 4.0**

Teaching Experience

Assistant Professor of Music Production, McNeese State University   2023 - Present
- Teach music production and general elective music courses
- Develop curriculum for the music production degree focus
- Serve on department committees
- Maintain the department's audio equipment and provide live sound reinforcement

Teaching Assistant, Peabody Conservatory, *Intro to Programming*   Spring 2021,2022
- Held office hours
- Graded student work
- Prepared and gave lectures on select music programming topics

Student Assistant, San Diego State University, *Music Theory IV*   Spring 2020
- Worked with professor to create appropriate lesson plans
- Graded student work

Tutor, San Diego State University, *Music Theory III, Live Sound II*   2018-2020
- Taught theory one on one with visually impaired student and provided disability assistance
- Taught live sound techniques, Pro Tools, Logic Pro, and recording techniques

Student Aid, Monroe Community College   2016-2018

- Operated and maintained the school's piano lab
- Assisted students with basic piano, ear training, and music theory exercises
- Troubleshooted computer and keyboard issues

Private Instructor, Rochester, NY   2013-2018
- Taught recording techniques to students from a wide variety of musical backgrounds
- Customized lessons ranging from use of DAWs, to proper miking techniques, to electronic music production
- Taught basic musicianship skills including guitar, piano, drum kit and voice

Employment
Director of Engineering, RIFFIT, Inc.   2022-Present
Music Technologist   2020-2022
- Member of small software team developing RIFFIT, a music learning software for real time text-to-song creation
- Develop an algorithmic composition system capable of synthesizing music in a variety of genres
- Develop and maintain RIFFIT's React.js front-end application and Node.js back-end applications
- Conduct music research in the fields of algorithmic composition and machine learning
- Lead the company's quality assurance procedures
- Manage a small group of part-time developers and interns
- Assist in the creation of seed round pitch decks

Audio Programmer, Freelance   2018-Present
- Create audio/MIDI plug-ins using the JUCE framework
- Design custom Max patches to assist live computer music performances
- Design C/C++ applications for use in music theory pedagogy

Sound Engineer, Freelance   2016-2020
- Provided sound reinforcement and front of house mixing services
- Provided studio mixing and mastering services
- Designed schematics for commercial-grade recording studios

Conference Presentations
Creating Custom Plugins From Directly Within Your DAW,   2022
Korean Electro Acoustic Music Society Annual Conference
Seoul, South Korea

Publications

Eckl, Garrett. "EZDSP: From Production to Programming." *Computer Music Journal Emille*, Vol.20, 2022, pp. 25-30.

Grants

Launch Grant, Peabody Conservatory   2021-2022
- Role: Principal Researcher
- Project: "EZDSP: From Production to Programming"
- Amount: $2,500
- Description: Commissioned to develop a learning platform to provide students with an accessible introduction to digital signal processing concepts.

Awards

- Outstanding Creative and Performing Arts award recipient, 2019 SDSU Student Research Symposium
- Graduated from San Diego State University *summa cum laude*

Developed Software

EZDSP, C++/SOUL   2022
       EZDSP is a platform for creating custom audio effects from directly within a DAW. Using JIT compilation, users can modify both the DSP algorithms and the GUI design of this plug-in from directly within the plug-in itself.

Real Time Humanizer, C++   2021
       Real Time Humanizer is a MIDI FX plug-in for generating expressive MIDI performances. Users can apply randomness to their MIDI tracks, and also place emphasis on certain beats, creating recordings that more closely mirror that of a real musician.

The Modulation Equation, JavaScript, C   2020
       The Modulation Equation is an algorithm for determining the most effective modulation between two given keys. It was written as part of a larger system for algorithmic composition.

Professional Experiences

Head of Sound, The Magic Hummingbird, Experimental Opera   2019
- Worked with musicians, actors and director to coordinate on stage sound effects
- Instructed a team of twelve students
- Coordinated audio feed with video crew

Mix Engineer, She Loves Me, San Diego State Fall 2019 Musical   2019
- Created mixing board scenes
- Mixed front-of-house
- Coordinated incorporation of sound design elements

Head of Sound, NWEAMO Festival, Electro-Acoustic Music Festival   2018, 2019
- Led a team of student recording engineers
- Mixed front-of-house
- Coordinated stage plots and rehearsal times with guest artists

Recordings

"Hunter" Documentary Soundtrack, Garrett Eckl & Chris Bravos, Surfgrass Productions   2022

Death of the Eldest Koelsh Brother, Your Name Here, Your Name Here Records   2021

The Magic Hummingbird, Joseph Waters, New West Evolving Arts and Music Organization   2020

Graduation At The Apocalypse, Your Name Here, Your Name Here Records   2020

Five Weeks, Your Name Here, Your Name Here Records   2017

Skills

Music

- Music programming languages: *Max/MSP, Csound, SOUL, Supercollider*
- Audio plug-in development (w/ JUCE)
- Digital Audio Workstations: *Logic Pro, REAPER, Pro Tools, Ableton*
- Digital signal processing: *transforms, FIR filter design, interpolation techniques*
- Algorithmic composition
- Creative coding APIs: *Processing, Arduino, Web Audio*
- Songwriting & music production

Programming

- Programming languages: *C/C++, JavaScript/Typescript, Python, MATLAB*
- HTML/CSS
- Web app development: *Node.js, React.js, Express.js, Firebase*
- Project management tools: *Git, Pivotal, Jenkins CI/CD, Notion*
- Cloud development: *Google Cloud Run, Pub/Sub, Redis, Docker, Kubernetes*
- UI/UX: *Chakra, Photoshop, Figma*