





# ALISON BERNICE MA

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## EDUCATION

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### Georgia Institute of Technology - Master of Science in *Music Technology*

Atlanta, GA

- **GPA:** 3.87
- **Research Lab:** Music Informatics Group, **Advisor:** Dr. Alexander Lerch
- **Honors & Awards:** 2020 College of Design Dean's Fellowship
- **Relevant Courses:** CS-7643 Deep Learning, CS-4641 Machine Learning, ECE-4270 Fundamentals of Digital Signal Processing, MUSI-6202 Computational Music and Audio Analysis

08/2020 - Present  
(Expected: 08/2022)

### Berklee College of Music - Bachelor of Music in *Electronic Production and Design*

Boston, MA

- **GPA:** 3.97 - *Summa Cum Laude*
- **Minor:** Sound Design for Video Games, **Advisor:** Dr. Richard Boulanger
- **Honors & Awards:** Max Mathews Award, John Towse Foundation Scholarship, Dean's List

09/2016 - 12/2019

## TECHNICAL SKILLS

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### MACHINE LEARNING

**Machine Learning:** Python (1.5 years), PyTorch (1 year), Ray.tune, TensorBoard

**Computation Tools:** Tableau, essentia, librosa, jMIR, jAudio, mido, numpy, scikit-learn, seaborn, matplotlib

### OTHER

**Programming:** C#, MaxMSP, Max for Live

**Misc:** Git, Linux, LaTeX, Zotero

## PROJECTS

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### Representation Learning for Automatic Indexing of Commercial Sound Effects Libraries

Atlanta, GA

- **Master's Project:** Implemented experiments for sound event classification and few-shot metric learning of commercial sound effects libraries with SVM, Random Forest, Convolutional Neural Network, and Siamese Neural Network architectures in Python and PyTorch

06/2021 - Present

### Adapting Phoneme Classification of Speech to Singing Voice

Atlanta, GA

- Worked with HMMs, GMMs, and RNNs with BiLSTMs using the Timit and DALI datasets

08/2021 - Present

### Deep Learning Approaches to Symbolic Sequential Music Generation and Musical In-painting

Atlanta, GA

- Surveyed deep learning approaches to symbolic sequential music generation and musical in-painting for ABC format, employing LSTMs with attention and Transformer architectures on the folk-rnn data\_v2\_worepeats dataset

03/2021 - 05/2020

### Audio versus MIDI-based Genre Classification

Atlanta, GA

- Conducted ablation study experiments on the LAKH MIDI Dataset v0.1, Million Song Dataset, and top-MAGD MSD Allmusic Genre Dataset to compare MIDI and audio-based classification with Random Forest, MLP, and CNN architectures

01/2021 - 05/2020

### Automated Image Captioning

Atlanta, GA

- Utilized attention-based Mask-RCNNs and LSTMs on the Flickr30k Kaggle dataset to achieve a BLEU score of 0.795 on the best caption from the test set in Keras

10/2020 - 12/2020

### The Relationship Between Stem Combinations of Features and Popularity through the 1925-2010s

Atlanta, GA

- Executed a feature analysis study and conducted statistical analysis utilizing Billboard Hot 100 metadata and SigSep Open-UnMix extracted audio stems for songs in the Million Song Dataset

08/2020 - 12/2020

<b>Max for Live Human-Computer Interaction Speech-to-Text Performance System</b>	<b>Boston, MA</b>
<ul style="list-style-type: none"> <li>Designed a real-time performance system using JavaScript, node.js, and socket.io to integrate Google Chrome's Speech-to-Text engine with Max for Live devices at the Berklee College of Music</li> </ul>	08/2019 - 10/2019
<b>Max for Live Open Sound Control 10.2 Surround Panning Tools</b>	<b>Boston, MA</b>
<ul style="list-style-type: none"> <li>Co-developed MaxMSP and Max for Live real-time panning tools for performers for use with Ableton Live and Audinate Dante at the Berklee College of Music <i>Digital Forest</i> Multimedia Installation</li> </ul>	02/2019 - 04/2019

## WORK EXPERIENCE

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<b>Production Assistant</b> – Alphabasic	<b>Marietta, GA</b>
<ul style="list-style-type: none"> <li>Assisted audio researcher and producer, Benn Jordan aka <i>The Flashbulb</i></li> </ul>	08/2021 - Present
<b>Recording Studio Intern</b> – Prairie Sun Recording	<b>Cotati, CA</b>
<ul style="list-style-type: none"> <li>Automated social media marketing emails, ran session setup and day to day studio operations</li> </ul>	05/2021 - 08/2021
<b>Freelance Audio Engineer</b> – Global Giving and Give India	<b>Hong Kong SAR</b>
<ul style="list-style-type: none"> <li>Oversaw all audio editing, mixing, and mastering procedures for PSA</li> </ul>	08/2020
<b>Recording Studio Intern</b> – Beach House Studios	<b>Weymouth, MA</b>
<ul style="list-style-type: none"> <li>Designed audio assets, prepared mix sessions, edited voiceovers, pitch/time-aligned stems, conducted quality assurance, archived songs</li> </ul>	05/2019 - 09/2019
<b>Content Producer</b> – HKJC Centre for Suicide Research and Prevention	<b>Hong Kong SAR</b>
<ul style="list-style-type: none"> <li>Managed all budget and finances for commissioned PSA</li> <li>Supervised music/film production tasks, inclusive of local and overseas talent acquisition</li> </ul>	06/2016 - 10/2018

## SELECTED MUSICAL PRESENTATIONS

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<b>SEAMUS 2020 National Conference @ University of Virginia</b>	<b>Charlottesville, VA</b>
<ul style="list-style-type: none"> <li>Presented <i>Engulf</i>, an original fixed 2-channel composition for voice and DSP</li> </ul>	03/2020

## AUDIO SKILLS & ABILITIES

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### SOFTWARE

**DAW/Editor:** Pro Tools, Ableton Live, Logic Pro, TwistedWave  
**Instruments:** Eurorack Modular Synthesizers, VCV Rack, Voice, Piano  
**Microphone:** Sennheiser MKH 8060  
**Game Audio:** Unity, Wwise  
**AV Networking:** Audinate Dante  
**Audio Plugins:** iZotope RX, UAD, SoundToys, GRM Tools, FabFilter, Waves, Melodyne, Revoice Pro, Cableguys, Cecilia, SPEAR, Tonstrum WHOOSH, Csound, Native Instruments Komplete, Spitfire Audio  
**Consoles:** API1608, Behringer x32, Yamaha QL & CL Series, Avid S6  
**Graphic/Video:** Adobe Premiere Pro, Photoshop, Lightroom, Illustrator

### AUDIO

- Sound design for interactive and linear media
- Solid experience with analog modular synthesizers and sound synthesis
- Mixing/mastering for interactive and linear media
- Foley, field, and voiceover recording & editing
- Music editing and audio quality assurance
- Audio repair and batch processing
- Audio engineering