Pavan Seshadri

(678) 622-9389 | pseshadri9@gatech.edu | github.com/pseshadri9 | pseshadri9.github.io

Education

Georgia Institute of Technology Atlanta, GA
M.S Music Technology *Aug 2022 – May 2024 (expected)*

- **Advisor**: Dr. Alexander Lerch
- **Coursework**: Fundamentals of DSP, Music Recommender Systems

Georgia Institute of Technology Atlanta, GA
B.S. in Computer Science, Minor in Music Technology *Aug 2017 – Aug 2021*

- **Coursework**: Machine Learning, Deep Learning, Algorithms Honors, Robotics and Perception, Computer Graphics, Statistics and Applications, Recording/Mixing

Selected Publications

Improving Music Performance Assessment with Contrastive Learning
Pavan Seshadri, Alexander Lerch
Proceedings of the International Society for Music Information Retrieval Conference (ISMIR) , 2021

Work Experience

Georgia Institute of Technology Aug 2022 - Present
Graduate Research Assistant *Atlanta, GA*

- Researching deep neural methods for audio based pedestrian traffic sensing
- **Advisors:** Dr. Alexander Lerch and Dr. Subhro Guhathakurta

Amazon Aug 2021 - May 2022
Software Development Engineer, Machine Learning *Seattle, WA*

- Machine Learning Engineer in the Product Knowledge organization supporting NLP-based item classification tasks
- Used AWS services to design and develop end-to-end infrastructure supporting large scale language models
- Collaborated with research scientists on model and data evaluation to discover and solve performance bottlenecks.

Georgia Tech Center For Music Technology Jan 2020 - May 2021
Undergraduate Research Assistant *Atlanta, GA*

- Research on deep learning based methods for automatic music performance assessment (MPA)

Amazon May 2020 - Aug 2020
Software Development Engineer Intern *Seattle, WA*

- Designed and built an automatic evaluation feature in a DNN-training pipeline to support product classification

Research Projects

Sequential Music Recommendation Aug 2022 - Present
Advisor: *Dr. Peter Knees* *Atlanta, GA*

- Investigating novel neural architectures and features for better latent representations of music sequences

Contrastive Learning for Music Performance Assessment Jan 2021 - May 2021
Advisor: *Dr. Alexander Lerch* *Atlanta, GA*

- Proposed a novel method using supervised contrastive learning for regression tasks in music performance assessment
- Achieved SoTA performance for MPA regression tasks

Evaluation of DNN-based Music Performance Assessment Aug 2020 - Dec 2020
Advisor: *Dr. Alexander Lerch* *Atlanta, GA*

- Conducted a study evaluating SoTA approaches for MPA on generalizing to instruments outside its training set

Technical Skills

Areas: Computer Audition, Natural Language Processing, Deep Learning, Signal Processing, ML Engineering
Languages: Python, Java, C/C++, Bash, MATLAB
Developer Tools: Git, Vim, Docker
Libraries/Frameworks: PyTorch, Amazon Web Services, Pandas, Numpy, Scipy, Matplotlib, librosa, pySpark
Music: Ableton Live, Audacity, Max/MSP

Awards

President's Undergraduate Research Award Aug 2020
Eagle Scout Dec 2016