

Tzu-Chun, Oscar, Hsu

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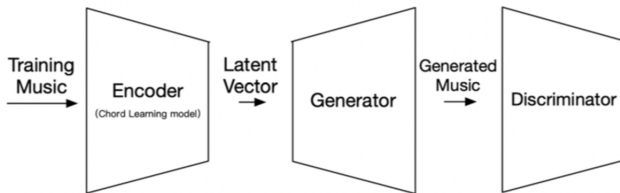
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November 21, 2024

Projects

1. Chord learning and adversarial framework for symbolic music generation

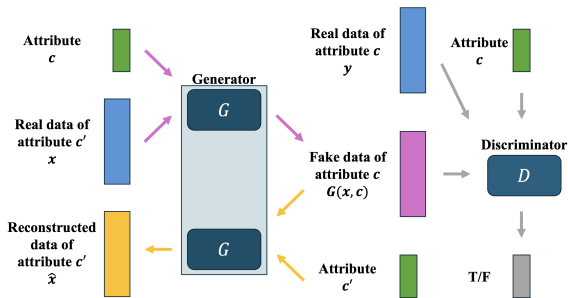
- Proposed a chord learning framework for multi-track symbolic music generation based on VAE and GAN.
- Introduced WGAN-GP to solve mode collapse and vanishing gradient problem.



Projects

2. (Bachelor's Thesis) Voice Conversion Based on Generative Adversarial Networks

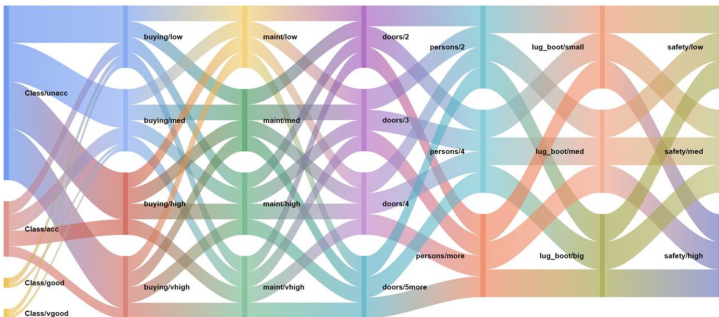
- Improved StarGAN-VC2 based on multi-speaker non-parallel corpus.
- Introduced WGAN-div, AdaIN layer, and neural vocoder, WaveGlow, for better results.



Projects

3. Synthetic Data Generation using Conditional Normalizing Flows

- Ability to replace original datasets and maintain same data distribution, and also highlight outliers for analysis.
- Built an B/S application to visualize results.



Awards

CCCC-Mobile Application Innovation Contest

First Prize 09 2018

The 4th "Internet+" Innovation and Entrepreneurship Competition

Gold Award 09 2018

College Students' Innovative Entrepreneurial Training Plan Program (SRTP)

Excellent 04 2018 – 05 2019

Experience

The University of British Columbia Vancouver Summer Program

Vancouver, Canada

07 2019 – 08 2019

- Included 2 courses, "Algorithms and the World Wide Web" and "Building Modern Web Applications".
- Collaborated with my teammates to complete our projects as team leader.

Skills

Languages

Python, Java, C, JavaScript

Technologies/Frameworks

PyTorch, Flask, Spring Boot, Vue.js, Git, SQL, MongoDB

Thanks for your attention

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