

TIMOTHY DE REUSE

résumé

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🐙 timothydereuse.github.io

PROFESSIONAL STATEMENT

Experienced Music Information Retrieval researcher with a strong background in machine learning, signal processing, and team management. Passionate about developing innovative software solutions for musicians and musicologists, with a focus on practical applications of research.

EXPERIENCE

Lab Manager at DDMAL (ddmal.music.mcgill.ca) 2021.09 – Present
McGill University, Montréal, Québec

- ❑ Developed and deployed a Dockerized web app for deep learning-based optical music recognition, used internationally by over 280 music archivists and musicologists.
- ❑ Managed a lab of 14 graduate students and interns in agile software development.

SIMSSA Casual Research Assistant (simssa.ca) 2017.09 – 2022.08
McGill University

- ❑ Developed novel machine learning methods for detecting character positions in handwritten historical manuscripts with 93% accuracy.
- ❑ Managed backend operations and network configuration for music-related web applications.

Lecturer: Music and the Internet 2021.09 – 2022.09
McGill University

- ❑ Developed and lectured new undergraduate course about the history of music and the internet, music streaming, audio formats, and MIR.
- ❑ Taught programming and web development skills (Git, HTML, CSS, AJAX) to music students.

EDUCATION

Doctor of Philosophy, Music Technology 2018.09 – 2024.06
McGill University

- ❑ Created a method for “spell-checking” musical scores using Transformer networks, reducing the time necessary to correct Optical Music Recognition (OMR) outputs by 30%.
- ❑ Designed, through consultation with musicians and musicologists, a pattern discovery system capable of differentiating improvisatory styles of jazz soloists with high confidence.

Master of Arts, Music Technology 2016.09 – 2018.08
McGill University

- ❑ Thesis: “A Machine Learning Approach to Pattern Discovery in Symbolic Music.”

Bachelor of Arts, Mathematics 2010.09 – 2014.09
University of North Texas, Denton, Texas

SKILLS

Technical

- ❑ Python for machine learning: keras (TensorFlow), scikit-learn, OpenCV
- ❑ C++ for digital signal processing: Synthesis Toolkit, VST SDK
- ❑ Music Software: FL Studio, Logic, Ableton Live, Audacity, Max/MSP
- ❑ Other: OpenStack, Ansible, Nginx, Java, SQL, Fourier analysis, MATLAB, LaTeX

Languages

- ❑ English, French (B2 – Intermediate), Spanish (B2 – Intermediate)