

# Choenden Kyirong

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## RESEARCH INTERESTS

Computational Music, Human-Centered AI, Music Information Retrieval, Music Structure, Improvisation

## EDUCATION

Current **M.Sc. in Sound & Music Computing**, Universitat Pompeu Fabra, *Music Technology Group*  
2023 **B.Sc. in Computer Science**, Simon Fraser University  
2023 **B.Sc. in Statistics**, Simon Fraser University  
2016 **Music in Performance (Jazz)**, University of Toronto

## RESEARCH EXPERIENCE

**Essentia**, Music Technology Group, *Research Intern*

Current Audio machine learning, music information retrieval, deep learning models, and statistical methods

## PAPERS

### Work in Progress

2025 “Algorithmic v.s. Human Bias in Hiring” with Sam Gyetvay and Pascuel Plotkin

## PROFESSIONAL EXPERIENCE

**BetterCart Analytics**, Core Data Team, *Machine Learning Engineer*

2022 - Led the Information Retrieval System that includes over 60,000,000 new records per week across 6,000+ stores and 100+ retailers, Data orchestration and deployment for offline processing and end-to-end ML pipelines, Named Entity Recognition solutions

**Samsung Research Canada**, Knox Analytics, *Data Engineer Intern*

2022-2023 Led a Data Retention Policy that reduced data storage cost by writing python scripts to analyze and report data usage, ETL Pipeline in airflow to automate an 8hr/week business task, CI/CD Pipeline that reduced development time of specific processes by containerizing and streamlining workflows

**WorkSafe British Columbia**, Innovation Team, *Data Scientist Intern*

2021-2022 Developed a document classification system by automating the identification and categorization of salient terms using spaCy and the MeSH ontology

**Canada Border Services Agency**, Research & Development, *Data Scientist Intern*

2020-2021 Contributed to SIR modeling of COVID-19 infection spread

## PROJECTS

### Harmony & Improvisation Visualizer

2024 Visualizing harmony, melody, and improvisation through connected graphs of chord tones + shared notes, bi-gram frequency arcs, and an interactive playground using MIDI and D3.js

### Classical Piano Generator

2023 Generating classical piano lines using a Bi-Directional LSTM with Attention with midi files of classical piano music

## AWARDS AND HONORS

2025 British Columbia Arts Council Individual Arts Grant  
2021 Vancouver DataJam 3rd Prize  
2020 SFU Business Analytics Case Competition 2nd Prize Technical Solution  
2014 University of Toronto Moe Koffman Memorial Jazz Scholarship  
2014 University of Toronto Entrance Scholarship  
2014 Music Festival Canada CORUS Outstanding Jazz Musician

## SERVICE

2022 **Mentor**, Simon Fraser University, Computer Science  
2021 **Mentor**, Simon Fraser University, Statistics  
2019 **Instructor**, Object Oriented Programming in Java, Illuminate Workshop  
2018 **Co-organizer**, Design Lab Live, Virtual Reality Workshop

## FESTIVAL, PERFORMANCE, AND STUDIO WORK HIGHLIGHTS

2025 Vancouver International Jazz Festival with *Amphibioux*  
2025 Vancouver International Jazz Festival with *The Daniel Deorksen Group*  
2025 Daniel Deorksen Album Recording with *Demitone Productions*  
2024 The Fox Cabaret with *Amphibioux*  
2024 Vancouver International Jazz Festival with *Igneous*  
2024 Frankie's Jazz Club with *Amphibioux*  
2024 Tyrant Studios with *Amphibioux*  
2024 Tyrant Studios with *The Daniel Deorksen Group*  
2024 Tofino Jazz Festival with *Amphibioux*  
2023 Tyrant Studios with *Thomas Houlden Sextet: A Booker Little Tribute*  
2023 Vancouver Show with *The Empanada Ilegales*  
2023 Tyrant Studios with *Amphibioux*  
2023 Innovate Music Festival *Amphibioux*

2023 Tofino Jazz Festival with *The Linaldo Sans Group*  
2023 Vancouver Island Tour with *Amphibioux*  
2023 Guilt & Co with *Midnight Boogaloo*  
2022 Tyrant Studios with *Amphibioux*  
2022 Michael J. Fox Theater with *The Simon Fraser University Orchestra*

Updated November 2025