

# Bishop Crowley

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## EDUCATION

Carnegie Mellon University *Pittsburgh, PA*

Dec 2023

Bachelor of Science, Double Major in Artificial Intelligence and Music Technology

GPA: 3.65, Dean's List Spring 2022

Selected Coursework:

Introduction to Deep Learning (Fall 2022), Computational Perception (Fall 2022), Signals and Systems, Functional Programming, Introduction to Computer Systems, Artificial Intelligence: Representation and Problem Solving, Principles of Imperative Computation, Introduction to Computer Music

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## SKILLS

Programming Languages: Python, C, CSS/HTML, Javascript, LaTeX, MATLAB

Tools: GitHub, PyTorch, NumPy, AWS, Google Colab

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## PROJECTS

Music and Technology Capstone Project (In Progress)

Fall 2022—Present

- Training deep neural networks on existing original compositions to generate new music with PyTorch.

TikTok/Meta Filters

2020—Present

- Developed several AR filters for TikTok, Facebook, and Instagram.
- Viewed over 3,000,000 times on TikTok.

A.I. Counterpoint

Fall 2021

- Developed program that generates original music via the rules of Renaissance musical harmony with classical artificial intelligence algorithms (local search, simulated annealing).
- Developed from scratch with no libraries, including MIDI file (.mid) reader/writer.

Parasocial Spatial Audio Event

Fall 2021

- Received grant from the Frank-Ratchye STUDIO for Creative Inquiry at CMU to create a 12-speaker spatial audio arrangement for experimental live music event.

Electronic MIDI Glove

Spring 2021

- Developed gesture-tracking glove that controls DAWs with MIDI over Bluetooth connection.
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## EXPERIENCE

Carnegie Mellon University

Aug 2022—Present

- Undergraduate Research Assistant, Frank-Ratchye STUDIO for Creative Inquiry.
- Assisted Associate Director in development and execution of digital archival asset management including processing, description, arrangement, and publication for scholarly use.

Bishop Ivy Music Project

2018—Present

- Over 2,500,000 streams for music under the alias "Bishop Ivy."
- Praised by Rolling Stone, Clash, Metal Magazine, Ones To Watch, Flaunt.
- Signed to Handwritten Records in 2021.

Wizard Radio

2018—2019

- Radio host for UK's most popular online teen radio-station, reaching 28,000+ listeners per show.