

# 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: 3.69, Dean's List Fall 2022, Spring 2022

Selected Coursework:

Deep Learning, Modern Regression (Spring 2023), Parallel and Sequential Data Structures and Algorithms (Spring 2023), Signals and Systems, Functional Programming, Computational Perception, Introduction to Computer Systems, Artificial Intelligence: Representation and Problem Solving

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## SKILLS

Programming Languages: Python, C, MATLAB, LaTeX

Tools: PyTorch, NumPy, Jupyter, Matplotlib, AWS, Google Colab, WandB, GitHub

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## PROJECTS

MyTorch

Fall 2022

- Implemented PyTorch neural network modules using NumPy for Introduction to Deep Learning, including: Linear, BatchNorm1d, Conv1d, Conv2d, RNNCell, and GRU.
- Also implemented ConvNeXt module for facial recognition and verification.

AI Counterpoint

Fall 2021

- Developed program that generates original music with Renaissance musical harmony using classical artificial intelligence algorithms (local search, simulated annealing); written in C with no libraries.

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 Gesture Glove

Spring 2021

- Developed motion-tracking glove from scratch that acts as a digital musical instrument.
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## EXPERIENCE

Carnegie Mellon University

Aug 2022—Present

- Undergraduate Research Assistant at the 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

- 2,500,000+ streams for music under the alias "Bishop Ivy."
- Featured on Spotify's *Fresh Finds* and *Mellow Morning* playlists.
- 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.