Evan Matthews

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EDUCATION

University of Illinois Urbana-Champaign — August 2023 – Present

M.S. in Computer Science

- Thesis Advisor: Paris Smaragdis
- Relevant coursework: Machine Learning for Signal Processing, Computer Vision

University of Illinois Urbana-Champaign — May 2023

B.S. in Computer Science + Music — *GPA: 3.76/4.00*

- FAA James Scholar | Dean's List: Fall 2019, Spring 2020, Spring 2021
- Relevant coursework: Algorithms & Models of Computation, Artificial Intelligence, Computation and Music, Electroacoustic Techniques, Systems Architecture, Data Structures, Database Systems

RESEARCH EXPERIENCE

Nearest Neighbor Classication for Classical Image Upsampling — December 2023

Python, NumPy, SciPy | Co-Author: Nicolas Prate

- KNN Interpolation, Dynamic-Ratio and Selective Upsampling to compete with ML methods
- Final project for CS 545, under P. Smaragdis

Transcribing Monophonic Audio with Deep-Learning Data — May 2023

Python, MusicXML/MIDI | Advisor: Zuofu Cheng

- Senior Capstone project; funded research project to collect hummed recordings
- Overall goal: develop models to transcribe audio recordings directly into sheet music

EXPERIENCE

Teaching Assistant — January 2021 – Present

Graduate, Undergraduate — *Champaign, IL*

- CS 448: Audio Computing Laboratory | P. Smaragdis (SP 2024)
- CS 340: Intro to Computer Systems | C. Evans (FA 2023)
- ECE 402: Electronic Music Synthesis | Z. Cheng (FA 2022), L. Haken (SP 2021)

High School Math Tutor — June 2023 – Present

Illinois Tutoring Initiative | Illinois State University — *Remote*

- Assist and mentor ninth-grade students virtually in Alegbra I, Geometry

Internship — November 2021 – August 2022

Haken Audio | Manager: Lippold Haken — *Champaign, IL*

- Produced and debugged state-of-the-art MIDI keyboards and controllers
- Received additional training with SHARC audio processors, DSP concepts, MIDI and MIDI controllers

LEADERSHIP EXPERIENCE

Association for Computing Machinery, UIUC Chapter — August 2021 – Present

- Chair, *SigMUSIC* | August 2023 – Present
- Treasurer | May 2022 – May 2023
- Chair, Social Committee | August 2021 – May 2022

TECHNICAL SKILLS

Languages: Python, C/C++, Java, OCaml, SQL, TeX/LaTeX
Frameworks: Flask, JUCE, Hugo
Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Zed, PyCharm, IntelliJ
Packages: NumPy, SciPy, Matplotlib, PyTorch, Pandas, GDB, Catch2, Music21, LilyPond