

# Evan Matthews

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## EDUCATION

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### University of Illinois Urbana-Champaign

August 2023 – Present

*M.S. in Computer Science*

- Thesis Advisor: Paris Smaragdis
- Topic: Audio Generation Improvement through Text Recaptioning

### University of Illinois Urbana-Champaign

August 2019 - 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

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### Bayesian Grading: Analysis of Scores in the Context of Cheating

May 2024

*Co-Authors: Victor Zhao, Yuxuan Chen | Advisor: Craig Zilles*

- Probabilistic analysis of student grade trustworthiness, given proctored, unproctored exam scores

### Nearest Neighbor Classification for Classical Image Upsampling

December 2023

*Co-Author: Nicolas Prate*

- KNN Interpolation, Dynamic-Ratio and Selective Upsampling to compete with ML methods

### Transcribing Monophonic Audio with Deep-Learning Data

May 2023

*Co-Author: Kevin Zhou | Advisor: Zuofu Cheng*

- Senior Capstone project: develop models to transcribe audio recordings directly into sheet music

## EXPERIENCE

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### Teaching Assistant

January 2021 – Present

*Graduate, Undergraduate*

*Champaign, IL*

- CS 545: Machine Learning for Signal Processing | M. Kim (FA 2024)
- 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)

### Intern

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

### Math Tutor

June 2023 – May 2024

*Illinois Tutoring Initiative | Illinois State University*

*Remote*

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

## LEADERSHIP EXPERIENCE

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### 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

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**Languages:** Python, C/C++, Java, Rust, OCaml, SQL, TeX/LaTeX, Bend

**Frameworks:** Flask, JUCE, Hugo

**Developer Tools:** Git, Docker, Google Cloud Platform, VS Code, Zed, PyCharm, IntelliJ

**Packages:** NumPy, SciPy, Matplotlib, PyTorch, Scikit-Learn, Pandas, GDB, Music21

(Updated 10/02/24)