

Matthew Udry

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EDUCATION

Yale University, New Haven, CT; Expected May 2022

- B.S. Computer Science; GPA (Spring 2020): 3.60
- **Relevant Coursework:** Intro to Systems Programming & Computer Organization; *Data Structures & Programming Techniques*; Object-Oriented Programming; *Algorithms (Spring 2021)*; Neural Networks & Language; *Computer Graphics (Spring 2021)*; Computer Music: Sound Representation & Synthesis

International Chinese Language Program, National Taiwan University, Taipei, Summer 2019

- Recipient of Richard U. Light Fellowship
- 10-week intensive Chinese language program

Tremper High School, Kenosha, WI; Class of 2018

- Valedictorian; Cumulative GPA: 4.0
- National AP Scholar (2018), National Merit Scholarship Finalist (2018)

EXPERIENCE & LEADERSHIP

Carnegie Mellon University, *Research Assistant*, Remote, Summer 2020

- Collaborated with Professor Johannes DeYoung on a piece of interactive media to be submitted to various festivals and conferences
- Experimented with neural network-powered music generation, constructing a custom dataset and remotely training models using high-performance computers
- Conceptualized and implemented all aspects of the work's audio, including:
 - Designing and programming an adaptive audio system in Unity
 - Utilizing novel synthesis techniques to integrate machine-generated audio into virtual environment
 - Manipulating and mixing audio to maintain a consistent listening experience

Rockwell Automation, *Intern*, Milwaukee, WI, Summer 2018

- Independently created external program (Microsoft VBA) to complement Rockwell software, increasing speed and program usability when working with complex projects
- Used Rockwell PLC Programming software to design programs for industrial applications

Low Strung, *Music Director*, January 2019 – Present

- Organize and lead weekly rehearsals for student-run, 12-cello touring rock band
- Arrange music and create setlists every semester, fairly distributing parts among group members
- Work with clients to find most appropriate music for each gig
- Manage group website, assist President and Business Manager with various management tasks

Yale Undergraduate Admissions Office, *Student Ambassador*, 2019 – Present

- Visit high schools and hold presentations about Yale, applying to college, and navigating financial aid
- Target schools in hometown that may lack resources and encourage high-achieving students to apply

SKILLS & ABILITIES

Programming Languages

- C
- Python
- C#
- HTML/CSS/Js

Tools & Software

- Unix/Bash
- ML (PyTorch)
- Unity
- MIDI/OSC
- Max/MSP/SuperCollider
- DAWs/ Notation Software

Foreign Languages: Advanced Chinese (Mandarin)

ACTIVITIES

Yale Game Developers, *Music and Audio Programmer*

Yale Daily News, *Podcast Producer and Sound Engineer, Contributing Writer*

Yale Open Music Initiative, *Member*