

Chenhui Jia

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EDUCATION

Smith College | *B.A., Computer Science and Music*
• GPA: 3.91/4.00; graduated May 2022

Northampton, MA

PUBLICATION

Jia, C., et al. (2023). repytah: An Open-Source Python Package for Building Aligned Hierarchies for Sequential Data. *Journal of Open Source Software*, 8(85), 5213. <https://doi.org/10.21105/joss.05213>

TECHNICAL & MUSICAL SKILLS

Programming & Tools: Python, Java, JavaScript, C, MATLAB, HTML/CSS, Ruby on Rails, Jupyter, Unity, Blender

Music: music theory, composition, music anthropology, world music, piano, percussion, violin, erhu, and guitar

EXPERIENCE & PROJECTS

Independent Educator | *Shadow Teacher & Academic Tutor* Oct 2022-Present

- Provide individualized academic support to children with ADHD, adapting instruction to their learning needs, attention patterns, and strengths.
- Teach introductory computer science and programming to older students through part-time tutoring.
- Guide students in developing musical skills and observe how music-based activities relate to sustained attention.

Smith College SURF: repytah | *Research Assistant & Project Lead* May 2020-May 2023

- Developed, improved, and debugged 4,000+ lines of Python across four packages to detect and analyze repeated structures in sequential data, including music.
- Created Jupyter notebooks, Read the Docs documentation, and unit tests for 40+ functions.
- Contributed to the public release of the open-source **repytah** package: [GitHub](#)

Smith College | *Computer Science Tutor* Jan-May 2022

- Held scheduled drop-in tutoring hours for *Introduction to Computer Science Through Programming* and *Programming with Data Structures*, helping students with programming concepts, debugging, and problem solving.

Improved-CadenCV | *Programmer* Mar-May 2022

- Enhanced and debugged an optical music recognition system, increasing score-recognition accuracy from approximately 60% to over 90% and supporting a broader range of sheet-music images.

ValetBike | *Programmer* Feb-Apr 2022

- Developed a local bike-rental web application supporting account registration, payment, mapping, kiosk interaction, and bicycle rental and return.

SAP | *Intern* May-Sep 2021

- Updated website and database content for product information and user reviews; wrote weekly posts about the company, its products, and related events.

Institute of Semiconductors, Chinese Academy of Sciences | *Research Assistant* Jun-Sep 2019

- Calculated experimental parameters for new materials and assisted with equipment debugging for a digital exposure system team.
- Conducted background research on laser-based oncology applications.

Resonance of Music | *Founder & President* Oct 2015-Sep 2025

- Founded and led a volunteer organization providing weekly piano lessons to children in orphanages.
- Designed music curricula and team-building activities for volunteers and students.
- Shared the organization's work through school publications to raise awareness of children's living conditions.

AWARDS & HONORS

- Dean's List, Smith College
- Ida Deck Haigh Memorial Prize for Distinguished Achievement in Piano, Smith College
- Winner, SisterHacks, Bryn Mawr College (9 teams; 32 participants)
- Delegate, China International Fair for Trade in Services (selected among 50 companies)
- National Second Place and Team Identity Award, Formula One in Schools Competition
- Second Place, Piano Competition (1,000+ competitors)

SELECTED PERFORMANCES

2022 Piano Soloist, Smith College Orchestra — Rachmaninoff, *Piano Concerto No. 2*, II. Adagio sostenuto

2019 Solo Piano — Liszt, *Trois études de concert*, No. 1, “Il lamento”

2019 Chamber Music, Piano Four Hands — Schubert, *Four Polonaises*, Op. 75, D. 599