

# melody chua

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## education

### Kunstuniversität Graz und Zürich University of the Arts (ZHdK)

*Doktor der Künste – Dr. artium*

2021 – Present

Resident Doctoral Candidate at the ZHdK Immersive Arts Space

Dissertation Research: “Developing a Visual Framework for Musical Improvisation Machines: Investigating Impacts on Human-Machine Interaction, Posthuman Identity, and Performance Narrative”

### Zürich University of the Arts (ZHdK)

2018 – 2021

*Master of Arts in Transdisciplinary Studies*

Thesis: “*black box fading*: Exploring Human-Machine Relationships and Impacts on Improvised Music Performance Practice Through Creating a Musical Improvisation Machine”

Distinction: mit Auszeichnung

2016 – 2018

*Master of Arts in Music Performance – Flute*

Studio: Prof. Matthias Ziegler

Thesis/Concentration: Research and Development of the Sensor Augmented Flute (Chaosflöte) at the Institute for Computer Music and Sound Technology

Minor: Electroacoustic Music Composition

Distinctions: Fulbright and Swiss Government Excellence Scholar, mit Auszeichnung

### University of Illinois at Urbana-Champaign (UIUC)

*Bachelor of Arts in Music Technology*

2012 – 2016

*Bachelor of Music in Flute Performance*

2012 – 2016

Studio: Dr. Jonathan Keeble

Distinctions: Chancellor’s Scholar, President’s Honor Scholar, Bronze Tablet Scholar, Summa cum laude

## selected work experience

### Zürich University of the Arts | [zhdk.ch](http://zhdk.ch)

April 2022 – Present

*Wissenschaftliche Mitarbeiter (project-basis), Immersive Arts Space |*

*Focus: 3D Audio, Teaching*

### Transdisciplinary Artist | <https://www.chua.ch/>

Sep. 2012 – Present

Background in flute performance, with a specialization in creating multimedia performance and installation works with interactive electronics; researching human-machine interactions in improvisation settings.

### elea Foundation for Ethics in Globalization | <https://www.elea.org/>

Oct. 2018 – Present

Senior Systems Engineer | Focus: AI and Machine Learning, Process Automation for Investment Teams (Jan. 2025—Present)

Information Technology Analyst | Focus: Systems Management, Full-Stack (2018-2024)

elea fights absolute poverty by supporting social enterprises in the Global South through entrepreneurial philanthropy.

**STUDIO ZYKLOS** | <https://www.zyklos.studio/>

Jan. 2023 – Present

Co-Founder, Performing Artist

Ensemble and new media lab dedicated to the development of human + AI-machine performances.

**University of the Arts Bern** | [hkb-soundarts.ch/](http://hkb-soundarts.ch/)

Sep. 2021 – Jun. 2023

Teaching Faculty, Sound Arts (Courses: Klangwerkstatt, Game Performances, History of Sound Arts; Individual Mentoring)

**FluteXpansions Sonic Immersion** | <http://www.flutexpansions.com/sonicimmersion>

Jun. 2021 – Jul. 2022

Faculty Artist

Flute and creativity intensives in contemporary music, improvisation, and live electronics.

**Null-state**

Jan. 2017 – 2020

Co-Founder, Performing Artist

Live electronics ensemble; providing workshops on electroacoustic music composition and performance practice

## selected projects

**Waveform.ai Festival: Guest Lecturer and Performing Artist | College of William and Mary, Arts x Sciences Exchange | Williamsburg, Virginia (USA)**

Mar. 2025

World premiere of “SUN UNDER WATER” for sensor-augmented flute, interactive sound and live projections. Guest lecture: “Interactive Media Design: Meaning-Making in Human-Machine Interaction.”

**World premiere, panic//void | Filmwinter Festival of Expanded Media | Stuttgart (DE)**

Jan. 2025

STUDIO ZYKLOS: Immersive multimedia performance “panic//void,” as lead interactive sound designer, performer, media artist

**World premiere, multimedia dance performance | Congress Basel (CH)**

Nov. 2024

“SHIFT” for dancer and visual projections; Animation, technical lead, sound design  
Opening performance of the CLTR2024 Conference “AI and Creative Industries” organized by the Swiss Federal Institute for Intellectual Property. Collaboration with Jaira Peyer.

**STUDIO ZYKLOS Tour | Berlin, Zürich, Bremen, Stuttgart**

Jun. 2024

Multimedia design and noise music performances with AIYA and Aiii improvisation machines and Chi Him Chik

Venues: trXtr Berlin, Kulturhaus Helferei, Radio Angrezi, Kultur Keller

**Exhibition: Plankton Imaginary // Experimental Ecology | Arts x Science team**

Apr.-Nov. 2024

Riikka Tauriainen and Meike Vogt | Kunstmuseum St. Gallen

Lead interaction, sound, and visual designer

**Exhibition | M4 Music Festival: AI & Music**

Mar. 2024

Interactive installation of the AIYA improvisation machine (developed by Melody Chua). Participants interact with an AI-driven music-making software that responds to body movements.

<b>Exhibition and Performances: LiberAiya   Zürich (CH), Konstanz (DE), Winterthur (CH)</b> <i>Concept, installation design, multimedia programming, and performance; concept and performance collaboration with Max Petersen</i>	Mar-May 2024
<b>World premiere, multimedia composition: <i>insistence machine</i> for midi keyboards and AIYA improvisation machine   Collegium Helveticum, CH</b> <i>Multimedia design and composition; performed by pianist Maryam Mehraban</i>	Oct. 2023
<b>World premiere, multimedia concert: <i>afterdust//afterglow</i>   Performances at the Artikulationen Festival Graz, Baby Angel Zürich, Immersive Arts Space Zürich</b> <i>STUDIO ZYKLOS (Melody Chua, Chi Him Chik): multimedia design, composition, performance</i>	Sep.–Oct. 2023
<b>Exhibition: Plankton Imaginary // Experimental Ecology   Arts x Science team Riikka Tauriainen and Meike Vogt   Kulturstiftung Basel H. Geiger</b> <i>Lead interaction, sound, and visual designer</i>	Aug. – Oct. 2023
<b>Multimedia concert: <i>when we walk</i>   Performance in Stäfa, CH</b> <i>Multimedia design, composition, performance; collaboration with dancer and visual designer Jaira Peyer</i>	Jun. 2023
<b>Exhibition: Echos I-III by Tina Omayemi Reden at Kunstmuseum Appenzell</b> <i>Lead interaction and sound designer. Through this exhibition, Tina Omayemi Reden wins the Vordemberge-Gildewart Award.</i>	Mar. – Jun. 2023
<b>Exhibition: touching reverberations by Tina Omayemi Reden at Stiftung Binz39</b> <i>Lead interaction and sound designer</i>	Dec. 2023
<b>Exhibition: River Oracle at Shedhalle   Zürich, CH</b> <i>Lead interaction and sound designer</i>	Jun. – July 2022
<b>Exhibition: River Oracle at RADIUS Center for Contemporary Art and Ecology   The Hague, NL</b> <i>Lead interaction and sound designer</i>	Nov. 2021 – Jul. 2022
<b>LiberA by Max Petersen</b> <i>Video Artist for album tracks “No SM” and “Get Out of Me”</i>	Sep. 2021-Feb. 2022
<b>black box fading   Immersive Arts Space</b> <i>Full author/composer of work</i> <a href="https://www.chua.ch/box/4">https://www.chua.ch/box/4</a>	Nov. 2020 – May 2021
<b>Kein Museum</b> <i>Featured Artist</i> <i>“aiya meets self” interactive audiovisual installation using Posenet skeleton detection</i> <a href="https://www.chua.ch/p/aiya-meets-self">https://www.chua.ch/p/aiya-meets-self</a>	Oct. – Nov. 2020
<b>Immersive Arts Space</b> <i>Lead developer for interactive sound</i> <i>Mirror MirrOr (“Happy Robots”) audiovisual dance performance using motion capture and reactive electronics</i>	Mar. – Sep. 2018
<b>Immersive Lab, Institute for Computer Music and Sound Technology</b> <i>Guest Resident Artist</i> <i>Interactive audiovisual installation for 360-degree touchscreen</i>	Jul. 2017

## selected festivals, conferences, symposiums

<b>ARTikulationen Festival for Artistic Research   Graz (AT)</b> <i>Recipient of Best Practice Award for outstanding research presentation</i>	Oct. 2024
<b>SONify! Festival   Graz, AT</b>	May 2024

World premiere, multimedia composition: <i>persistence machine</i> for midi keyboards and AIYA improvisation machine Multimedia design and composition; performed by pianist Maryam Mehraban	
<b>Artikulationen Festival of Artistic Research</b>   Graz, AT	Oct. 2023
Austrian premiere of composition/multimedia performance <i>afterdust//afterglow</i> for Chaosflöte, sensor-augmented saxophone, AIYA improvisation machine, Aiii improvisation machine	
<b>CAMPground Festival</b>   Tampa, USA	Mar. 2023
U.S. premiere of new composition for Chaosflöte and AIYA improvisation machine; performed by flutist Julianna Eidle	
<b>Transdisciplinary Artistic PhD Symposium, ZHdK</b>   Zürich, CH	Nov. 2022
Presentation of artistic research with AIYA improvisation machine	
<b>Constellations Symposium</b>   Zürich, CH	Nov. 2022
Premiere of work for AIYA and Aiii improvisation machines and two human performers	
<b>University of the Arts Bern</b>   Bern, CH	Sep. 2022
Concert of works for flute and electronics; premiere of new work “Dragonfly” for Chaosflöte and improvisation machine	
<b>CHIME Festival</b>   Chicago, USA	Jun. 2022
Premiere of new solo works for flute and electronics	
<b>Festival Kleintheater Luzern</b>   Luzern, USA	Apr. 2022
360° film screening of <i>black box fading</i>	
<b>New Interfaces for Music Expression (NIME)</b>   Auckland, NZ	Mar. 2022
Panel adjudicator for art installation submissions	
<b>Performing Music Festival</b>   South Bend, USA	Feb. 2022
Featured artist (Null-state): Live-coding and Chaosflöte performance	
<b>REFRESH Conference, Swiss Digital Days</b>   Zürich, CH	Nov. 2021
360°/VR film exhibition of <i>black box fading</i>	
<b>White Pulse Marathon 3000</b>   Zürich, CH	Oct. 2021
Organization team (lead technical manager), sound mixing, and performance	
<b>Academia Engelberg: Engelberger Dialogue</b>   Engelberg, CH	Oct. 2021
Guest performance, Chaosflöte, interactive electronics, and live visuals	
<b>La Côte Flute Festival</b>   Gland, CH	Oct. 2021
Full concert of works for Chaosflöte, interactive electronics, and live visuals	
<b>My Behavioral Surplus Festival – “Freedom of Speech in the Age of Surveillance Capitalism”</b>   Stuttgart, DE	Jul. 2021
Performance of AIYA and Aiii improvisation machines, Chaosflöte, and saxophone	
<b>New Interfaces for Music Expression (NIME)</b>   Shanghai, CN	Jun. 2021
Installation of <i>black box fading</i> (full) (360°/VR film)	
<b>University of South Florida New Music Consortium</b>   Online	Apr. 2021
Showing of <i>black box fading</i> (pt. 1) (360°/VR film)	
<b>Performing Media Festival</b>   Online	Feb. 2021
Featured artist; Showing of <i>black box fading</i> (pt. 1) (360°/VR film)	
<b>International PAM! Festival</b>   Uster, CH	Sep. 2020
Solo concert: <i>diaphragma</i> for Chaosflöte, AIYA improvisation machine, and live sound/live visuals	
<b>Network Music Festival</b>   Online	Jul. 2020
Live-coding performance <i>meditation.dystopia</i> (Null-state)	
<b>Accidental Music Festival</b>   Online	May 2020
Intercontinental live-coding performance <i>meditation.dystopia</i> (Null-state)	

<b>REFRESH Conference at Digital Festival   Zürich, CH</b> World premiere of <i>next step</i> for dancer, pressure-sensitive shoes, and live visuals	Sep. 2019
<b>Swiss Digital Day   Zürich, CH</b> Chaosflöte performance at the Zürich Hauptbahnhof	Sep. 2019
<b>Zürich Design Biennale   Zürich, CH</b> World premiere of <i>BAD DECISIONS</i> for Chaosflöte and improvisation machine (AIYA) at the Museum für Gestaltung Zürich	Sep. 2019
<b>La Côte Flute Festival   Gland, CH</b> Full recital of works for Chaosflöte	Oct. 2018
<b>ZHdK Highlights Festival   Zürich, CH</b> Chaosflöte recital	Sep. 2018; Sep. 2017
<b>USF International New Music Festival   Tampa, FL, USA</b> Selected as a performer, composer, and scholar, presenting and performing works for the Chaosflöte	April 2018
<b>Immerse Festival / Creative City   Orlando, FL, USA</b> Intercontinental live-coding performance (Null-state)	Oct. 2017
<b>Digital Festival   Zürich, CH</b> European premiere of <i>Prelude to an Avenoir</i> for Chaosflöte and live sound/live visuals	Sep. 2017
<b>Accidental Music Festival   Orlando, FL, USA</b> As resident artist giving performances, masterclasses, and workshops on electroacoustic composition and Chaosflöte	Sep. 2017
<b>ZKM Next Generation Festival   Karlsruhe, DE</b> Live-electronics laptop performance	Jun. 2017
<b>“Art’s Birthday”   Freiburg, DE</b> Premiere of <i>Hcaos Ver. 2</i> for Chaosflöte and live sound/visuals	Jan. 2017
<b>Atlantic Music Festival   Waterville, ME, USA</b> <i>Future Music Lab Fellowship</i> World premiere of <i>Selective Memory</i> for Chaosflöte, 4-channel live sound and live visuals	Jul. 2016
<b>Montreal Contemporary Music Lab   Montreal, CA</b> World premiere of compositions by Keiko Devaux ( <i>Falling’s Just Like Flying</i> ) and Neil Quigley ( <i>Elephant in a Dark Room</i> )	May – June 2016
<b>Grolloo International Flute Festival   Grolloo, NL</b> <i>Selected Participant/Performer</i>	Aug. – Sep. 2015

## selected lectures, presentations, publications

<b>College of William and Mary   Guest Lecturer</b> Interactive Media Design: Meaning-Making in Human-Machine Interaction As part of the Arts x Sciences Exchange, Waveform.ai Festival	Mar. 2025
<b>Magic and Design Festival at the Hochschule der Künste Bern (MA Design)</b> Lecture with Paloma Ayala: “River Oracle – Water Bodies as Guiding Beings”	Oct. 2023
<b>PLATEAU Publication: “The machine is your mirror, but do you recognize yourself?”</b> Article contribution on learnings from the development of the sensor-augmented flute (Chaosflöte) and improvisation machine.	Jul. 2023
<b>CHO – Centre Chorégraphique, Urgent Paradise—Workshop   Lausanne, CH</b> An oracle-making and sound workshop: This performative process addresses the concepts of liquid bodies and hydrofeminisms, emphasizing touch as a horizon.	Feb. 2023

<b>University of the Arts Bern Symposium: 20 Years of Sound Arts</b>   Bern, CH	Sep. 2022
Workshop: "Techniques for applying motion gesture recognition and mapping as an expressive medium"	
<b>University of Chicago—Guest Lecture</b>   Chicago, USA	Jun. 2022
Lecture: "(Dis)embodiment with an Immersive Improvisation Machine"	
<b>ZHdK Immersive Arts Space—Public Lecture Series</b>   Zürich, CH	Dec. 2021
Lecture: "(Dis)embodiment with an Immersive Improvisation Machine"	
<b>My Behavioral Surplus Festival – "Freedom of Speech in the Age of Surveillance Capitalism"</b>   Stuttgart, DE	Jul. 2021
Guest artist presentation, <i>black box fading</i>	
<b>Staatliche Hochschule für Musik und Darstellende Kunst</b>   Stuttgart, DE	Jul. 2021
Guest lecture and workshop on machine improvisation	
<b>Kein Museum</b>   Zürich, CH	Jun. 2021
Workshop presentation on the queer use of digital games as part of the artistic research project "Queering Games"	
<b>University of South Florida, School of Music</b>   Tampa, USA	Nov. 2019; Jan. 2017
Guest lecture in composition for real-time electronics + guest artist presentation; guest lecture "Aesthetic and Practical Considerations in Electronic Music"	
<b>Zürcher Kantonalbank (Freiraum – Für Kreativität, Co-Kreation, und Innovation)</b>   Zürich, CH	Nov. 2019
Chaosflöte presentation	
<b>Geneva International Film Festival (Swiss Interactive Sessions)</b>   Geneva, CH	Nov. 2019
Chaosflöte presentation	
<b>Kein Kino (Zürich University of the Arts)</b>   Zürich, CH	Mar. 2019
Lecture: <i>Building a Performance Practice for Interactive Electronics</i>	
<b>Embry-Riddle Aeronautical University</b>   Daytona Beach, USA	Oct. 2018
Guest artist presentation (Null-state) and live-coding workshop	
<b>Zürich University of the Arts</b>   Zürich, CH	Feb. 2018
Chaosflöte Presentation for ZHdK Academic Advisory Committee: Future of Creative Industries	
<b>Eastern Florida State College</b>   Cocoa, USA	Sep. 2017, Sep. 2018
Guest lecture on studio recording techniques and digital audio workstations + guest artist presentation	
<b>Wayne State University</b>   Detroit, USA	Mar. 2018
Guest lecture and artist presentation on performing with live electronics	
<b>University of Central Florida, School of Music</b>   Orlando, USA	Feb. 2017; Jan. 2018
Improvisation and live-coding workshops	
<b>Melrose Center for Technology, Innovation, and Creativity</b>   Orlando, USA	Jul. 2017; Sep. 2017
Max/Mitter programming workshop and guest artist presentation	

## awards

### **Pax Award for New Media Art (Nominated)**

Mar. 2025

Awarded by the Art Foundation Pax and the HEK (House of Electronic Arts Basel) for excellence in new media art. Artists cannot actively apply, but are nominated and selected by a jury.

### **Best Practice Award (Recipient)**

Oct. 2024

Awarded for outstanding doctoral presentation at the ARTikulationen Festival for Artistic Research (Graz, Austria).

### **Digital Shapers (Nomination) | Category: "Creatives"**

Aug. 2020

Awarded by digitalswitzerland, in partnership with Bilanz and Handelszeitung, for leading digital innovation in Switzerland

### **Fulbright and Swiss Government Excellence Scholarship**

Sep. 2016 – May 2018

Study and research grant awarded by the United States government in cooperation with the Swiss government, based on merit. Provides a monthly stipend for the duration of study to cover living expenses, tuition, and transportation.

## program participation

### **Roche Continents**

Aug. 2019

*Selected Participant, representing ZHdK*

5-day exchange between scientists and artists, hosted by Roche and the Salzburg Festival

### **Z-Kubator "What's next\_Project" Entrepreneurship Program**

Mar. – Sep. 2018

*Selected Participant*

## skills

### **programming environments and systems for interactive sound**

MaxMSP (extensive experience), Pure Data, Supercollider, Dante, Ambisonics 3D-audio protocol

### **programming environments and systems for interactive visuals**

Jitter, TouchDesigner, Resolume

### **digital audio workstations**

Ableton (extensive experience), Reaper, Logic Pro

### **IT systems, platforms, and programming languages**

Python, Javascript, Scripting (Powershell, Batch, XML), App Prototyping (Power Apps), Data Analysis and Presentation (Power BI), Process Automation (Microsoft Flows), Network engineering & configuration (Unifi Systems), NAS & data management (Synology, AWS), CRM management (Salesforce), Central Device Management Systems (Microsoft Intune), Domain management