

# ADAM Yuzhen Zhang

[Adamyuzhenzhang.github.io](https://adamyuzhenzhang.github.io)

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## Education

- 2021 - Present      **Cornell University** - Jacobs Technion-Cornell Institute at Cornell Tech  
Dual Master of Science Degrees:  
Information Systems (Cornell); Applied Information Science (Technion)  
Cumulative GPA 4.072/4.3; expected completion: May, 2023.
- 2016 - 2021      **Cornell University** - College of Architecture, Art, and Planning  
Bachelor of Architecture; Computer Science Minor.  
Thesis: "*VR Anthropocene – Spatial Composition Through Virtual Locomotion*"  
Advisors: Jenny Sabin and Sasa Zivkovic  
Cumulative GPA 3.856/4.3.
- 2017 & 2019      **Cornell in Rome**  
Fall 2019 Architecture Design Studio, augmented by field trips and history seminars  
Summer 2017 Imagining Rome: Art Studio and Creative Writing Workshops in Italy

## Publications

- [1]      Yavo-Ayalon, S., **Zhang, Y.**, Han, R., Joshi, S. Bu, F., Murr, C., Zhou I., Ju, W., "CXR: Communal eXtended Reality for Immersive, Situated, On-Road Experiences", Revise and Resubmit, CHI '23.
- [2]      **Zhang, Y.**, Han, R., Malte, J., Ju W., Leithinger, D., "Wizard of Props: Integrating Physical Props and VR for Interactive Design", Submitted, TEI '23 Work in Progress.

## Research Experiences

- 2022 Jan - Present      **Research Assistant; Future Automation Research Laboratory at Cornell, NYC**  
Advisors: Wendy Ju, Daniel Leithinger (THING Lab, ATLAS Institute, CU Boulder);
- *Communal eXtended Reality* [1]  
Developed a communal XR bus tour to narrate possible impacts of climate change for community engagement. Implemented three technical applications: a panoramic video renderer with a high-fidelity animated digital twin of the Roosevelt Island, a VR player for immersive visualization of the scenarios, and a geolocation-tracking system that synchronizes the virtual experience to the movement of the bus.
  - *Wizard of Props* [2] and *MR Heavy Machine Prototyping*  
Designed and developed interactive systems that combine physical props and virtual interaction to enable designers to understand the implications of embodiment in user interaction.
- 2022 Jun - Aug      **Research Intern; XR Collaboratory at Cornell, NYC**
- Advisor: Harald Haraldsson
  - Assisted the development of course *CS5650 / INFO5340 Virtual and Augmented Reality*.
  - Designed and developed a custom Unity XR package from scratch based on OpenXR.
  - Implemented tracking, locomotion, and interaction for Oculus VR.
  - Created unit tests, documentation, and guidelines for student use.

- 2020 Jun - Aug      **Research Associate; Virtual Places VR Research Lab at Cornell AAP, Ithaca, NY**  
 Advisor: Henry Richardson
- Worked in a team of three to extend the city generation plugins WREN and Vitruvio in Unreal Engine 4.
  - Developed a Section plugin for creating and displaying cuts through meshes; and an AI Pedestrian Simulation plugin for studying pedestrian circulation in urban environments.
  - Implemented 2D and spatial interfaces for both tools to be used in VR.

## Teaching

- 2022 May - Jun      **Graduate Student Lecturer; Cornell University, Ithaca, NY**
- Designed and taught *ARCH1510 Introduction to Virtual and Augmented Reality*, 3 credits.
  - Lectured and guided individual projects to help students explore VR's role in an iterative design workflow using Gravity Sketch and Unreal Engine 4.
  - Developed a template VR project in Unreal to support students' designs, coupled with documentation. Curated a VR exhibition to showcase the applications built by students.
- 2022 Aug - Present      **Student Academic Assistant; Cornell Tech, NYC**
- For *CS 5650 / INFO 5340 Virtual and Augmented Reality* and *CS 5678 Topics in Mixed Reality* by Director Harald Haraldsson.
  - Created and graded two VR assignments on locomotion and interaction.
  - Guided students' final projects on developing a generative VR design tool.

## Employments

- 2022 Dec - Present      **Startup Intern; UrbanMix, NYC**  
 Developed an interactive 3D phone app that visualizes the renting states of NYCHA buildings to automate decision-making and increase developers' returns.
- 2019 May - Jul      **Architectural Assistant; Malfona Petrini Architetti, Rome, Italy**  
 Worked for Professor Lina Malfona; analyzed historical and local architecture at Formello Rome; worked with local clients to develop drawings and models for the conceptual design of a villa.
- 2017 Jun - Aug      **Intern Architect; BJTU Architectural Survey & Design Co., Ltd., Beijing, China**  
 Analyzed zoo typologies for the design of an elephant house; Created diagrams and drawings for presentation; learned the process of architectural design.

## Activities

- 2019 Nov      **Lighting Designer; Locally Grown Dance; Cornell PMA, Ithaca, NY**  
 Participated in stage lighting design for local dancers in Ithaca
- 2019 Jun      **Presenter; Polit(t)ico Research Lab; University of Pisa, Pisa, Italy**  
 Theoretical research on the duality of the collective (politico) and politics (politico) through the design of an (absent) curatorial architecture; presented panoramic renderings on the Polit(t)ico workshop in comparative literature, art, and architectural design.
- 2018 May - Aug      **Team Member of BJTU; Solar Decathlon 2018; Dezhou, China**  
 Collaborated with students from Beijing Jiaotong University and local contractors; constructed a two-story net-zero residential villa.
- 2017 Feb - Apr      **Museum Curator; Herbert F. Johnson Museum of Art; Ithaca, NY**  
 Curated the show "*Power, Haunting, and Resilience*" along with faculty; worked especially on a themed exhibition "*Remaining Echo: Facets of Haunting in Asian Art*".

## Honors

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**Harald Haraldsson**  
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