Cenqi Zhu

PH. D of Design, Construction, and Planning

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Language: English, Chinese

EDUCATION

University of Florida, Gainesville, FL

— *Ph.D. in Design, Construction, and Planning*

Aug. 2020. - Aug. 2025

— Master Science of *Urban Analytics*

Aug. 2024 - May. 2025

— *Master of Landscape Architecture*

Aug. 2017 - May. 2020.

Zhejiang University, Hangzhou, Zhejiang, China

— *Bachelor of Landscape Architecture and Gardening*

Sep. 2013 - Aug. 2017

WORKING EXPERIENCE

Postdoctoral Researcher

Geographic Planning / Resilience Information Center, University of Florida

Aug. 2025 - current

Signal4 Analytics — *FL Transportation Safety, Crash Mapping and Analysis*

https://www.geoplan.ufl.edu/portfolio/signal4/   (The project won the 2025 ATSIP Best Practices in Traffic Records Award)

- **Lead Researcher: 1)** Directed a statewide GIS and deep learning project to detect and digitize street intersections across Florida, producing a geospatial dataset for transportation analysis. 2) Advancing the Signal4 Diagram Tool through large language model (LLM)–embedded crash narrative generation;

- **AI Research Assistant:** Contributed to developing custom-trained AI models for removing vehicles from satellite imagery, enabling the creation of clean, high-precision aerial maps for traffic crash diagram applications.

Computer Vision Annotation & AI Evaluation Contributor

Outlier (Remote | Freelance) – "Aether" Project

Nov. 2025 - Dec. 2025
Delivered consistent, instruction–aligned annotations that improved dataset quality for refining cutting-edge AI systems

RESEARCH EXPERIENCE

My research centers on integrating emerging technologies into urban design, planning, and analysis. Combining expertise in 3D modeling and visualization, GIS, machine learning, and AI–generated content (AIGC), I offer an innovative perspective on human perception, streetscape and open space design, and transportation safety.

TEACHING EXPERIENCE

Responsible for teaching and assisting in undergraduate and graduate courses within the School of Landscape and Urban Regional Planning.

Instructor

UF URP4230/6280– 3D Geospatial Urban Modeling & Visualization

Teaching Assistant

UF URP6871–Planning & Design I

Research Assistance
Department of URP, University of Florida

Signal4 Diagram — *Subproject of Signal4 Analytics*

May. 2023 - Aug. 2025
- Developing the Signal4 Diagram tool with integrated AI-based crash narrative generation.
- Managing and updating crash safety datasets to ensure data quality and reliability.
- Conducting system testing and validation for new tool functionalities.

Street VR — *Street Visualization and Assessment*

Aug. 2020 - May.2023
- Researched and implemented rule-based modeling techniques to support street design evaluations.

- Developed advanced visualization workflows for immersive and interactive street assessment.

AWARDS & SCHOLARSHIP

Council of Educators in Landscape Architecture (CELA)

(2023) CELA Student Research Award - Honorable Mention
"Integrating rule-based visualization and street sustainability evaluation"
https://thecela.org/awards/

American Society of Landscape Architecture (ASLA)

(2020) FL Chapter- Open Space Category: Awards of Honor
"Nature Sound Therapeutic Park"
https://www.aslaflorida.org/2020DesignAwards

University of Florida

(2025) Paul and Malea Zwick Graduate Student Award ($500)

(2024) Generative AI & The Arts Competition: project exhibited on AI Day

(2022) Research Travel Authorization Fund ($800)

(2022) 28th Annual International Student Achievement Awards

(2022) Urban Land Institute (ULI) Hines Student Competition, 1st place of UF Internal ($500)

(2020) Jonathan and Elizabeth Seymour Endowed Scholarship ($500)

(2019) Foster Conant/Florida Home Builders Scholarship Award

(2019) David W. and LeAnn S. Johnston Award ($2500)

https://dcp.ufl.edu/landscape/student-alumni-awards/

Zhejiang University (China)

(2015) 3rd prize "Learning and Loving Gardens" design competition

(2013) Outstanding Student Award

Guest Lectures

UF LAA3350C – Site design and planning: 3D modeling & rendering workflow: AutoCAD → SketchUp → Lumion → Photoshop

For UF URP6871 – Planning & Design I: Human Perception of Built Environment (Fall 2022)

PROGRAMMING & SOFTWARE SKILL

Programming & Tools
1. Proficient
Python (PyCharm, Jupyter Notebook, and Google Colab); R (RStudio)
2. Knowledgeable
TypeScript and JavaScript (Visual Studio Code)
C# (Applied in Unity)
Large Dataset Management using SQL Developer

Data & AI Skill
1. Statistic
Descriptive statistics and regression analysis
2. Machine Learning & Deep learning
Computer vision model training ability (Roboflow, ArcGIS Pro, Python); Large Language Model integration (OpenAI API)
3. Generative AI Tools
Stable Diffusion WebUI, MidJourney, Photoshop-based Gen-AI Tools

ESRI Software
Proficient in ArcGIS Pro and ArcGIS CityEngine. Experienced with ArcGIS Urban

(2013) Third-class scholarship

RESEARCH EXPERIENCE

Degree Terminal Projects, Thesis, Dissertation

Dissertation — *A Visual Perception Evaluation Framework for Conceptual Design of Complete Streets Using Bayesian Networks*

Aug. 2022 - Aug. 2025 https://ufdc.ufl.edu/UFE0062136/00001/citation

Graduate Thesis (MSUA) — *Exploring Embedded AI for Auto-Generating Traffic Crash Report Narrative*

May. 2024 - May. 2025 https://ufdc.ufl.edu/UFE0062279/00001/citation

Graduate Terminal Project (MLA) — *Wildlife Conservation Strategy on Florida Wildland-urban Interface*

May. 2019 - May. 2020 https://ufdc.ufl.edu/AA00077689/00001/citation

Senior Project — *Urban Green Corridor Design in Siping, Jilin, China*

Jul. 2016 - Jul. 2017

Conference

(2025) Designing communities for climate action and resilience (EDRA56)

Co-author. Luo, Y., **Zhu, C.**, Hu, R. Perceived Restorative Effects of Landscape Components on University Campus

(2023) ESRI Geodesign Summit

Attended as Presenter. **Zhu, C.**, Bejleri, I, Bufkin, J., Noh, S., Finnerty, J. Integrating Rule-based Visualization and Street Sustainability Evaluation

Attended as Co-author. Bejleri, I, Chen, K., **Zhu, C.**, Noh, S. Is VR better than 360-panorama for visual evaluation of geodesign projects?

(2022) Association of collegiate schools of planning (ACSP) annual conference - Video Presentation

Attended as Presenter. **Zhu, C.**, Chen, K., Bufkin, J., Noh, S., Bejleri, I. Does the delivery method of Virtual Reality technology affect people's visual perceptions of urban street design?

(2022) Transportation Research Board (TRB)-10th International Symposium on Visualization in Transportation

Attended as Presenter. Bejleri, I., **Zhu, C.**, Bufkin, J., Noh, S., Finnerty, J. Integrating rule-based visualization and street sustainability evaluation

Attended as Co-author: **Zhu, C.**, Chen,K., Bufkin, J., Noh, S., Bejleri, I. Immersive VR versus interactive 360-panorama in assessing people's perception of urban street design

(2021) TRB –Visualization lighting talks

3D Visualization & Immersive Experience
SketchUp, Lumion, Blender, Mozilla Hub (Online VR)

Design, Graphic & Video:
Autodesk CAD, Civil 3D, Adobe Photoshop, InDesign, After Effects, Premiere, Audition, Sai (tablet painting), Wix (web design tool)

Game Engine:
Unreal, Unity

ACADEMIC INTERNSHIP

Redevelopment Project
Oviedo Urban Center redevelopment project

Dec 2019 ~ Feb 2020

Lot Design Projects

Gainesville Cohousing Community-Outdoor Landscape Design for Lot 20

Julian Residence- Water Management Design for Yard Storm Water Issue

May. 2018 ~ Feb. 2019

Urban Planning Projects

Rurban Cluster Planning in Qianku, Wenzhou City, Zhejiang, China

Coastal Cluster Planning in Sanmen, Taizhou City, Zhejiang, China

May. 2016 ~ May. 2017

OUTREACH ACTIVITIES/ SERVICE
(2025) Serve as the Guest speaker for the "Panel AI for Startups" at the 49th North

Attended as Co-author. Bejleri, I., Noh, S., Bufkin, J., **Zhu, C.**, Pierre-Jean, R., O'Connell, M., Cohen, B., Bejleri, E. Visualizing procedurally generated street designs and traffic simulation in a virtual reality experience

(2021) ACSP annual conference

Attended as Co-author. Bejleri, I., Noh, S., **Zhu, C.**, & Bufkin, J. Visualizing Complete Streets Scenarios Generated from 3d Rule-Based Modeling and Traffic Simulation in VR.

Publications

Luo, Y.*, Zhu, C., & Rui, H. (in press). Perceived restorative effects of landscape component: How can campus landscape benefit student health? *Landscape Journal.*

(Under Peer Review and resubmission) Chen, K.*, Ju, B., **Zhu, C.**, Kim, R., Subramanian, S.V., U.S. Homeownership, 1970–2020: Housing and Households Doubled, Ownership Stalled - *Cities*

America Zhejiang University Alumni Convention

(2025) Serve as a reviewer for the 2026 CELA conference abstract submissions

(2025) Working on Startup Game Studio

(2022-Current): Freelance Illustrator

(2018) Volunteer for Asia Rock Garden Maintenance, Harn Art Museum, University of Florida

(2015) "Heart-Warming" Project (Zhejiang University): Service in the nursing home.

(2014) Top 10 volunteers of "Kitty Hawk" Program (Zhejiang University): Tutor for poverty-stricken children.