

PhD Opportunities in Architectural Intelligence + Design Computation

School of Architecture | UF College of Design, Construction and Planning | University of Florida

The University of Florida School of Architecture seeks PhD students to join two research labs at the intersection of architecture, computation, and artificial intelligence. The two positions represent distinct research directions and mentorship environments while contributing to a growing research initiative around AI and design within the school. Applicants are encouraged to apply to the position that closely aligns with their research interests.

Two fellowship-supported PhD opportunities are available for Fall 2027. Prospective students with other sources of funding are also encouraged to express interest. Applicants should identify the research direction and lab that most closely align with their interests.

Position 01.

PhD Research Opportunities in Design Computation

Tzu-Chieh Kurt Hong, PhD

[Shape Computation Lab](#)

Assistant Professor

The Shape Computation Lab (SCL) at School of Architecture at University of Florida is seeking a self-motivated and enthusiastic PhD student to join its research program. With the rapid advancement of artificial intelligence, design computation in architecture is being profoundly reshaped, both in the tools we use and in the way we think. Precisely because of this, foundational research in computation matters more than ever. There has never been a better moment to help build the computational foundations that architectural design will stand on next.

Research Areas of Interest

The SCL treats visual computing as a foundation for design. Rather than relying on symbolic computation alone, my research program seeks to give today's AI a computational basis rooted in vision, shape, and design, so that it can operate within a wider range of visual computing systems suited to architectural practice. The team particularly interested in working with students whose research aligns with one or more of the following areas:

- Design computation and computational design theory
- Shape grammars and rule-based generative systems
- Visual computing and shape-based computational frameworks
- Computer-aided design systems and computational geometry
- Very-large-scale design automation and data synthesis
- Artificial intelligence in architectural design

Minimum Requirements

- A professional degree in architecture (B.Arch or M.Arch) or

- A Master of Science in architecture or design with a concentration in a related field such as Computational Design, Digital Fabrication, or Digital Technology, OR, at least four years of professional experience in a related design computation field
- Programming experience (e.g., Python, C#, or Rhino/Grasshopper scripting)

Preferred Requirements

- Experience in software development
 - Experience in grant writing
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Position 02.

PhD Research Opportunities in Architectural Intelligence

Frederick Chando Kim, PhD

[Creative Data Critical Design Lab](#)

Assistant Professor

The Creative Data Critical Design (CDCD) Lab is looking for self-motivated and interdisciplinary PhD students to join the team. The lab investigates computational approaches and innovative uses of data in architecture, with a focus on how form and geometry can operate as a language for design intelligence. The research explores how AI can support new ways of seeing, interpreting, and reasoning about architecture through human–machine collaboration.

Research Areas of Interest

CDCD approaches architectural form as a source of spatial, cultural, environmental, and material knowledge. Research moves between analogue and computational modes of representation—across drawings, images, 3D models, text, graphs, scales, and levels of abstraction—to explore both analytical and generative applications of machine learning. Research areas include:

- Architectural form, geometry, and representation
- Analytical and generative machine learning for design
- Embodied perception, spatial experience, and human response
- Vernacular knowledge, architectural archive, morphological analysis
- Circular design, architectural reassembly, and hybrid typologies
- Agentic AI, multimodal systems, and architectural reasoning

Minimum Requirements

- A professional degree in architecture (B.Arch or M.Arch) or a relevant master’s degree in design technology, OR
- A master’s degree in computer science/engineering, Human–Computer Interaction, Spatial Computing, Neuroscience, or a related field
- Programming experience (e.g., Python, C#, or Rhino/Grasshopper scripting)

Preferred Requirements

- Experience in machine learning or computer vision
- Experience in spatial computing or human–computer interaction
- Experience with EEG or neurophysiological experimentation

- Experience in research publication or grant writing

Application Information

Research Environment

Students will join a dynamic intellectual community within UF's School of Architecture and the College of Design, Construction and Planning, with opportunities for interdisciplinary collaboration across campus. UF has made a strong commitment to artificial intelligence research—from theory to application—creating an exceptional environment for AI-driven scholarship.

Mentorship Philosophy

The labs emphasize collaborative scholarship that balances academic rigor with real-world impact. The mentorship approach encourages critical thinking, methodological innovation, and the development of both theoretical frameworks and practical applications.

Start Date

Fall 2027

Application Process

To express your interest in joining my research group as a PhD student, please send:

1. CV
 2. Portfolio
 3. A one-page Letter of Intent
 4. Any published papers or your master's thesis, if available
- Position 01 — Design Computation | Shape Computation Lab
Send materials to tzuchieh.hong@ufl.edu by **September 30**, with "Doctoral Student Position: Design Computation" in the subject line.
 - Position 02 — Architectural Intelligence | Creative Data Critical Design Lab
Send materials to f.kim@ufl.edu by **September 30**, with "Doctoral Student Position: Architectural Intelligence" in the subject line.

Note that this is a **pre-interview** stage: candidates whose qualifications fit the labs will be invited to submit a formal application to the PhD program by **December 5**. Applicants who do not meet every listed qualification are still encouraged to send interest if they demonstrate strong potential and a clear interest in the research area.

Candidates must apply to the [University of Florida](https://dcp.ufl.edu/academics/phd/) to be considered as prospective members of the group. Final admission will be at the discretion of the School of Architecture PhD Selection Committee and the University of Florida Graduate School, contingent upon meeting all necessary requirements. For more information about the UF DCP PhD program and admissions process, please visit: <https://dcp.ufl.edu/academics/phd/>

About the University of Florida, School of Architecture

The University of Florida (UF) is a highly regarded public university. In 2026, TIME Magazine ranked UF 16th among all U.S. universities (public and private) and 4th among public universities. Both U.S. News and Forbes ranked UF 30th among all U.S. universities, with Forbes placing UF 5th among public universities and U.S. News ranking UF tied with UT Austin at 7th among public universities. UF is a top-tier public research university with abundant research resources and a diverse, forward-looking research environment.

UF is located in Gainesville, in northern Florida, a small and charming college town. Founded in 1925, the School of Architecture has a century-long history and is centered on design research, integrating architectural design, technology, AI, sustainability, and interdisciplinary research. In recent years, both the university as a whole and the School of Architecture have invested substantial resources in AI research. The School has recently launched a new AI program (AI Certificate) and a new digital fabrication lab, reflecting its strong commitment to advancing research.

We look forward to hearing from passionate scholars ready to contribute to the future of architectural design computation!