# **Constantinos Miltiadis**

Transdisciplinary architect • programmer • UX & design researcher Dipl.-Ing Architect Engineer • MAS AI ETH • (expected) Doctor of Arts

#### **PROFILE**

Transdisciplinary architect-engineer, programmer, and digital design researcher with 12 years of international experience across scientific research, design consulting, UX, R&D, and creative technology prototyping. Specialized in interactive media, game design, and VR development, with a focus on novel user experience design—demonstrated through research publications, award-winning prototypes, appointments at leading institutions, and original teaching in immersive technologies. An experienced speaker with over 30 invited talks, skilled communicator, and avid networker adept at cross-disciplinary collaboration. I bring a unique combination of creative design thinking, deep technical expertise, and sharp analytical acumen, complemented by strong interpersonal skills.

# **KEY COMPETENCIES**

- Design consulting & project management.
- Teamwork, interdisciplinary communication, and cross-functional collaboration.
- UX and digital design research using applied and mixed research methods.
- R&D, software and hardware prototyping.
- Software development (C#, Java, Python, JS).
- · Real-time interaction design, with expertise in gamemaking and VR development.
- · Scientific and technical writing.
- Event production and curation.

### PROFESSIONAL EXPERIENCE

# UX design researcher in VR & virtual navigation Aalto University. School of ARTS. Dept. of Design

09.2019-02.2025

- Interdisciplinary research and exploratory prototyping for novel forms of UX in VR, focused on interactive movement in non-Euclidean virtual environments.
- Part of the Research Council of Finland 'Experience Design' profiling project.

### Junior assistant professor (Universitätsassistent) TU Graz. Institute of Architecture and Media

09.2015-08.2019

- Exploratory design research and publishing on the UX of spatial movement in VR.
- Lead teacher in master-level studio modules in game design and VR development.

# Research & teaching assistant

10 2014-07 2015

#### ETH Zurich. Institute for Technology in Architecture

- R&D, software & hardware prototyping for in-house research projects and startups.
- Workshop teacher in creative programming and digital fabrication.

#### Computational design consulting

11.2012-08.2015

- Freelance consulting services in R&D, prototyping, programming, and digital design.
- Clients include Nexxiot AG, SV Studio, Object-e, Dentistry School of Athens.

#### **EDUCATION**

# Doctorate of Arts (degree expected in Fall 2025)

09.2019-2025

# Aalto University. School of ARTS. Dept. of Design

 Dissertation [in review]: SpaceTimeCraft: Integrative research through design into the experience of navigation in virtual environments.

#### Computer music (non-degree studies)

09.2018-06.2019

# University of Music and Perfoming Arts, Graz. Institute of Electronic Music

• Further education in spatial audio and algorithmic composition.

# MAS in Architecture and Information (MAS AI ETH) ETH Zurich. Chair for Computer Aided Architectural Design

09.2013-11.2014

- Professional Master of Advanced Studies focused on computational design.
- Thesis: R&D of a wireless full-body VR system (software & hardware).

# Architect engineer (Dipl.-Ing Architect) National Technical University of Athens

09.2006-10.2012

# Architecture engineering studies focused on architectural, industrial, and urban design, with a specialization in parametric and algorithmic design.

• Thesis: R&D of a real-time interactive kinetic structure (software & physical model).

#### CONTACT

Constantinos Miltiadis 00100 Helsinki, Finland

+350 50 322 1381

c.miltiadis@gmail.com

#### Online portfolio

cmiltiadis.github.io/studioany/

#### Socials

<u>LinkedIn</u> <u>Research Gate</u> <u>Google Scholar</u>

#### **TECHNICAL SKILLS**

#### R&D

- Rapid software & hardware prototyping
- · Basic & applied research
- UI & UX design research
- Technical writing & documentation

# Programming

- C#, Java, Python, JS, Arduino
- VS Code, EMACS DOOM, Git

# VR & game development

- · Unity engine
- Game design & development
- · Gameplay programming
- Procedural generation
- Tool development

#### Digital design

- Adobe Creative Suite
- Modeling: Rhino, Grasshopper, Blender, AutoCAD

# Additional computing skills

- Markdown, Org Mode, Obsidian
- Google & MS Office suites
- · Ableton, Reaper, Supercollider
- Wordpress, Hugo
- Windows, MacOS, Linux

### **LANGUAGES**

- · Greek-native
- English-fluent (GCE, IELTS, GRE)
- German-basic (A2)

#### RESUME SUPPLEMENT

#### **OUTLINE**

- Held positions at 3 leading international universities.
- Experienced public speaker with over 30 presentations on VR UX and design research in AT, DE, CH, FI, DK, USA.
- Author of 9 peer-reviewed papers and 5 book chapters.
- Seasoned teacher and course leader in creative programming, gamemaking, and VR development at ETH Zurich, TU Graz, and in multiple invited workshops.
- Supported the production and exhibition of over 50 student-developed videogames and VR experiences.
- Curator and producer of over 40 events in the context of research and art.
- Contributed to over 15 cross-disciplinary projects.
- Exhibited work in 8 media art events.
- Procured 2 seed funding grants.

# **TEACHING EXPERIENCE**

- As lead teacher and original course developer:
- 2016-2019. TU Graz. 16 ECTS master studio module on experimental game design and VR development.
- Game design & VR workshops at ETH Zurich (2024, 2025), OSSA Poland (2018), TU Vienna (2015).
- 2015. ETH Zurich. Workshop series on creative programming, live interaction, and robotic fabrication.
- 2024. Aalto ARTS. Teaching assistant. Al & Design.
- 2023. Aalto ARTS. Thesis advisor. Design research BA.

#### **AWARDS & RECOGNITION**

- Projects featured in international press including The Guardian, Reuters, Euronews, and Fast Company.
- 2023. ACADIA cultural history fellowship.
- 2018. Scientific mission grant, AR sound walk prototype.
- 2015. Ivan Petrovic prize for the best paper by a young researcher. eCAADe conference. TU Vienna.
- 2015. Second prize. YouReshape wearable technology competition, with Selina Reiterer.
- 2015. Second prize. Zeiss VR One. Mobile VR app competition.
- 2014. Arthur C. Clarke prize for "the most creative and unorthodox approach". Architectural competition for the Museum of Science Fiction. Los Angeles.
- 2012. Fourth Prize. Architectural competition for the Faliron Pier Landmark, with SV Studio. Athens.

## **COMMUNITY SERVICE**

- Founder and curator of the IAM Open Lecture Series (30 events, 2015–2019), co-founder of Tabletalks on Architecture (4 events, 2016–2017), and contributor to several art and discourse events including Ars Electronica Festival (2020), Documenta 15 (2022), and Miss Read Art Book Fair (2023, 2024).
- Co-chair of the 2021 Digital Futures international conference, University of Southern California (2021).
- Expert reviewer for CAAD Futures, ACADIA, eCAADe, Foundations of Digital Games, Sobre Journal, ISF.
- Guest reviewer for several design courses including at ETH Zurich, TU Vienna, U Innsbruck, TU Graz, Aalto ARTS.
- Co-founder of the working groups Spatial Aesthetics and Artificial Environments (2020), Games & Praxis (2023).
- Member of ENCORE, Design of Structures, and Game Praxiology research groups (Aalto ARTS).
- Doctoral researcher representative at Aalto ARTS (2020).

#### **PUBLICATIONS**

- Miltiadis, C., 2023. Other than Text: Media Used in Game Studies Publications. A Computational Analysis into 20 Years of Publications of the Game Studies Journal, and an Appeal for Research Through Design, in: Proceedings of DiGRA 2023 Conference. Sevilla.
- 2. **Miltiadis, C.**, 2023. An Open Living Archive for ACADIA, in: Habits of the Anthropocene. ACADIA, Denver, pp. 229–231.
- 3. Fricker, P., Landau-Donnelly, F., **Miltiadis, C.**, Singh, S., 2023. Interconnected Agencies for Sustainable Futures: A Discourse on the Notion of Adaptation and Space. JPBLHE 11 100–125
- Gerber, D., Pantazis, E., Bogosian, B., Nahmad, A., Miltiadis, C. (Eds.), 2022. Design Imperatives: The Future is Now. 19th International Conference, CAAD Futures 2021, Los Angeles, CA, USA, Selected Papers., Communications in Computer and Information Science. Springer.
- 5. **Miltiadis, C.**, Roman, M., 2022. Groundlessness, in: Manuach, I., Engelhardt, A. (Eds.), Chimeras: Inventory of Synthetic Cognition. Onassis Foundation, Athens, pp. 310–312.
- 6. **Miltiadis, C.**, 2022. Spacetime-Craft: An Archaeology of Visions and Explorations of Spatial Experience, in: Nakas, K., Reinfeld, P. (Eds.), Bildhafte Räume, Begehbare Bilder. Brill | Fink, Paderborn, Germany, pp. 149–165.
- Miltiadis, C., Sharma, G.K., 2021. Beyond the Visual A research curriculum for explorations in spatiotemporal environments. Journal for Artistic Research.
- 8. **Miltiadis, C.**, 2020. Oblivious to Gravity: Virtual Architecture between disciplinary dead ends and complex intersections. Archidoct, Variability 8, 24–37.
- Miltiadis, C., 2019. The Architectural Continuum: Choropoietic media and post-physical-world environments, in: Gerber, A., Götz, U. (Eds.), Architectonics of Game Spaces. Transcript, Bielefeld, Germany, pp. 183–199.
- 10. Artopoulos, G., Miltiadis, C., Bagni, F., 2018. Hybrid Heritagescapes as Urban Commons in Mediterranean Cities, in: Menezes, M., Costa, C.S. (Eds.), Neighbourhood & City - Analogue and Digital Perspectives. Edições Lusófona, Lisbon, pp. 81–96.
- Miltiadis, C., 2018. Virtual Reality, Videogames, Architecture and Education. From utopian drawings to inconstructible navigable environments, in: Proceedings of the 36th eCAADe Conference. Lodz, pp. 815–824.
- 12. Griego, D., Kuliga, S., Bielik, M., Standfest, M., Ojha, V.K., Schneider, S., König, R., Donath, D., Schmitt, G., Miltiadis, C., Forino, A., Clements, B., Choudhury, A., Joss, R., 2017. ESUM Urban Sensing Handbook: Component, Assembly and Operational Guide: Sensor backpack & 360° Videos. ETH Zurich.
- 13. **Miltiadis, C.**, 2016. Project anywhere: An interface for virtual architecture. International Journal of Architectural Computing 14, 386–397.
- 14. **Miltiadis, C.**, 2015. Virtual Architecture in a Real-time, Interactive, Augmented Reality Environment in: Proceedings of the 33rd eCAADe Conference. Vienna, pp. 61–68.
- 15. Miltiadis, C., 2013. From the Univocal to the Dissipative. Computation and performance methodology in realtime architecture, in: Proceedings of the 31st eCAADe Conference. Delft University of Technology, pp. 517–525.