Georgios Triantafyllidis, PhD
Curriculum Vitae

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1. Personal Details and CV Date

Surname: Triantafyllidis
First names: Georgios
ORCID: 0000-0003-1190-733X
Address: Hans Mustads gate 2B, 2821-Gjøvik, Norway
Email: georg.triantafyllidis@gmail.com
Tel: +47 465 06 158
Date of Birth: 26.06.1986
Place of Birth: Athens, Greece
CV Date: October 2025

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2. Degrees

2022-2025 PhD in Engineering (Defense scheduled: October 3, 2025)
Norwegian University of Science and Technology (NTNU), Gjøvik, Norway
Thesis: Designing a Circular City Twin: A System-of-Systems Enabling Co-Design and Decision-Making for Sustainable Built Environment

2019-2020 Erasmus Mundus MSc. Building Information Modelling (BIM)
Politecnico di Milano, Milan, Italy
Grade: 110/110
Focus: Information Management, Parametric Design and Sustainability; Human-Machine Interactions During the Design Process

2016-2017 MSc. Design Research
Bauhaus Dessau Foundation / Anhalt University of Applied Sciences / Humboldt University of Berlin, Germany
Grade: 1.9
Focus: Design Education; Knowledge of History as Agent and Active Matter for Innovation in Architectural Design

2007-2015 BSc. & MSc. in Architecture
University of Florence, Florence, Italy
Grade: 110/110 summa cum laude
Focus: Evolution of Historical Cities; Traces of Old Buildings and Ruins as Agents for Design

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3. Other Education and Expertise

2024 Summer School on AI in the AEC
ETH Zürich – Design++
Focus: Machine learning and generative AI for AEC applications, neural networks, GANs, hybrid AI architectures

2023 GeoBIM Summer School
Politecnico di Milano, UCL, NTNU, University of Cambridge
Focus: GIS and BIM for Asset and Facilities Management, 3D modelling, digital twins

2023 Linked Data in Architecture and Construction
Eindhoven University of Technology, Universidad Politécnica de Madrid, CNR, Ghent

University, RWTH Aachen
Focus: Semantic web technologies, web-based data integration for AEC

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4. Language Skills

Native language: Greek
Other languages:

- English: Fluent (professional/academic proficiency)
- Italian: Fluent
- German: Professional working proficiency
- Norwegian: Basic proficiency

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5. Current Employment

2025-Present Post-doc Researcher
Norwegian University of Science and Technology (NTNU), Department of Manufacturing and Civil Engineering
Gjøvik, Norway

- HEU CIRCULess Project: Designing new building products from reclaimed Construction and Demolition Waste
- Research focus: Building Information Modelling, circular economy strategies, DfD, parametric modelling, symbolic AI systems

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6. Previous Work Experience

2022-2025 PhD Candidate and Teaching Assistant
Norwegian University of Science and Technology (NTNU), Gjøvik, Norway
Circular City Project - Interdisciplinary research on circular economy in built environment, Affiliated with: CircWOOD and SirkTRE research projects

2021-2022 Pre-Doc Researcher and Teaching Assistant
Graz University of Technology (TU Graz), Institute of Architecture Technology, Graz, Austria
City Remixed Project - circular building stock strategies
Joining Cards Project – Design and development of interior building elements from cardboard

2020-2021 Architect
HPP Architekten, Germany
HOAI phases 1-5 - rehabilitation and adaptive reuse of heritage buildings, competitions, feasibility studies

2019-2020 Post Graduate Master's Thesis Candidate
Snøhetta, Department for Research & Innovation, Norway
Carbon accounting in early design phase, BIM workflow development

2017-2019 Architect
DGI Bauwerk, Germany
Architectural competitions, feasibility studies, heritage building rehabilitation

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7. Research Funding and Grants

2025 (Submitted) HEU Project Application
Role: WP Leader on Data Integration for Co-Design, Foresighting, Monitoring and Scenario

Development
Norwegian University of Science and Technology (NTNU)

2021-2022 City Remixed: Circular Building Stock Strategies for Graz
Funding Body: Land Steiermark
Role: Project Manager and Researcher
Contribution: Writing, reviewing, defining project scope for funding and data acquisition, modelling, and BIM methods
Status: Completed

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8. Research Output

Publications

1. **Triantafyllidis, G.**, Müller, D.B., Wellinger, S., Huang, L., 2025. Accelerating circular cities with semi-automatic building information modeling for existing buildings. *Journal of Cleaner Production* 514, 145783. https://doi.org/10.1016/j.jclepro.2025.145783
2. Triantafyllidis, G., Mahnert, K.C., Huang, L. (2025). BIM to GIS: Multi-Criteria Queries for Material Tracking in Circular Built Environments. *Journal of Circular Economy*, 3(2). https://doi.org/10.55845/LLZN4383
3. **Triantafyllidis, G.**, Huang, L., 2023. A framework for semi-automated creation of Building Information Models for existing buildings. *Journal of Physics: Conference Series*. IOP Publishing, p. 192015. https://doi.org/10.1088/1742-6596/2600/19/192015
4. **Triantafyllidis, G.**, Wellinger, S., Huang, L., (2025). Automating Circularity Assessment in BIM for Material Reuse-Driven Design. *SBE25 Conference*, Trondheim, Norway. (Accepted)
5. Aalto, P., Dittrich, N., **Triantafyllidis, G.**, Mutale, L., Stolz, B., 2025. Mapping Trondheim's building stock, in: Mario, R., Marie Frier, H. (Eds.), Structures and Architecture. CRC Press, London, pp. 1852–1859. https://doi.org/10.1201/9781003658641-220
6. **Triantafyllidis, G.**, & Riewe, R. (2023). Building Information Modelling (BIM) beyond an efficiency and costs' saving method. In *CA2RE+ Delft Recommendation: Conference for Artistic and Architectural Research* (pp. 432-441). https://doi.org/10.59490/mg.61
7. Hausegger, B., Raudaschl, M., Levak, T., **Triantafyllidis, G.**, Dengg, E., Kurz, C., Riewe, R., Juhart, J., Gündera, A., Haingartner, S., Schlegl, D., & Regl, J. (2022). Surveying the building stock of Graz with regard to a circular economy in the construction sector. IOP Conference Series: Earth and Environmental Science, 1078(1), 012001. IOP Publishing. https://doi.org/10.1088/1755-1315/1078/1/012001
8. Raudaschl, M., Levak, T., Riewe, R., **Triantafyllidis, G.**, Drnda, E., Popek, S., Schlegl, D., Funke-Kaiser, D., & Lund, A. (2022). Piezoelectric textile façade for the energy supply of active sensor technology with regard to data management for circular economy in building construction. IOP Conference Series: Earth and Environmental Science, 1078(1), 012037. IOP Publishing. https://doi.org/10.1088/1755-1315/1078/1/012037
9. Gedde, K.B.*, **Triantafyllidis, G.***, Miatto, A., et al., (2025). Influence of construction practices on historical wood use. *Journal of Industrial Ecology*. (accepted)
*Contributed equally

Manuscripts under review:

1. **Triantafyllidis, G.**, Jetlund, K., Huang, L., (2025) Bridging scales: A modular ontology framework for urban material tracking. *Scientific Reports*. (under review)

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9. Research Supervision and Leadership Experience

BSc Thesis Supervision:

2024-2025 Main Supervisor and Examiner
Norwegian University of Science and Technology (NTNU)
Title: Wood-based fire walls under new regulations (1998-2021): Interactions between safety, building regulations and CO_2 footprint
Parametric evaluation systems, LCA integration in BIM environments

2024-2025 External Supervisor
Norwegian Military Academy (Krigsskole)
Title: Building Viability Assessment for Life Extension and Adaptive Reuse: A Case Study in the Norwegian Defence Sector
Review of existing frameworks to define parameters for assessing existing building adaptability to future adaptive reuse

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10. Teaching Merits

Norwegian University of Science and Technology (NTNU)

2022-2025 Course Manager, Lecturer and Co-Coordinator
BIM1001 – Basic Intelligent Modelling (Continuing Education Program)

- Designed and coordinated course on BIM fundamentals with fosus on collaborative processes and information requirement for circularity in existing buildings
- Developed curriculum on object-oriented modelling, data integration, with regards to circular economy
- Supervised and evaluated student assignments

2022-2025 Lecturer and Course Co-Coordinator
TVB4110 - Digital Building Information (MSc)

- Delivered lectures on BIM for lifecycle management
- Introduced systems thinking and wicked problems in built environment
- Assessment and examination of student work

2022-2025 Guest Lecturer
AAR4466 - Architecture 6 Large Buildings (BSc)

- Theoretical background on interplay between tools in design processes, decision making and design exploration
- Digital tools for sustainable urban design
- BIM-GIS integration and parametric design methods

Graz University of Technology (TU Graz)

2021-2022 Lecturer and Course Coordinator
MSc Course on System Technologies

- Research-oriented seminar on digital technologies for sustainable architecture with regards to interplays between regulations, constructability and collaboration of stakeholders in AEC
- Data-driven workflows, BIM integration, systems thinking

2021-2022 Lecturer and Course Coordinator
BSc Konstruieren 3 & 4 (Design and Construction III & IV)

- Integrated design-build curriculum
- Technical detailing, sustainable construction, passive design strategies
- 1:20 scale façade section models

11. Other Key Academic Merits

Peer Review Activities:

- Reviewer and member of Scientific Commitee for SBE22 Berlin, 2022

Conference Chair:

- Co-Chair of Conference on Circular Economy organized from Hellenic Society for Circular Economy, Chania, 2024

Professional Memberships:

- Registered Architect

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12. Scientific and Societal Impact

Research Communication:

- Contributed to public understanding of circular economy in construction through project videos and presentations

Research Outreach and Dissemination:

- NTNU Kveld City Project video: https://youtu.be/gMifugq0ZZ8,

Haugen, R. W.; Larssæther, S.; Aalto, P.; Dittrich, N. M.; **Triantafyllidis, G.**; Stolz, B. A. P. (2023) NTNU Kveld: Den sirkulære byen – hvordan kan eksisterende bygg bli en ressurs for gjenbruk?. NTNU Kveld: Den sirkulære byen – hvordan kan eksisterende bygg bli en ressurs for gjenbruk?

Interviews

- **Triantafyllidis, G.,** Huang, L., Wang-Svendsen, M. (2025): Making it easier to recycle your house. Norwegian SciTech News Norwegian SciTech News [Business/trade/industry journal] 2025-08-20
- **Triantafyllidis, G.,** Huang, L., Wang-Svendsen, M. (2025): Slik skal det bli enklere å resirkulere huset ditt, Teknisk Ukeblad, [Business/trade/industry journal] 2025-08-20

Industry Collaboration:

- Multi-stakeholder engagement in City Remixed project (Graz)
- CIRCULess project industry partnerships for material tracking solutions

Promoting Responsible Research:

- Integration of sustainability and circular economy principles in all research activities

Exhibitions:

- **Triantafyllidis, G**., Raudaschl, M., Levak, T., Dengg, E., Kurz, C., Riewe, R., Juhart, J., Gündera, A., Haingartner, S., Schlegl, D., & Regl, J. (2022): City-Remixed [Exhibition]. New European Bauhaus Festival, Brussels, Belgium.

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13. Other Merits

Technical Expertise:

- Symbolic AI Systems (OWL/RDF, SPARQL)
- Parametric Modelling (Dynamo, Grasshopper)
- BIM Authoring & Automation (Revit API)
- Semantic Modelling and BIM-GIS Integration
- Sustainability and Circularity Systems Development
- Abobe Creative Suite