



AMIRADEL SHAMSHIRGARAN

29.11.1992, Birjand, Iran 🇮🇷

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PROFILE

Licensed architect with 3+ years of experience in solution-driven architectural design, BIM-based collaboration, and sustainability research. Proven track record of delivering BIM models up to LOD 350 and conducting clash detection tests. Skilled in enhancing stakeholder engagement through immersive AR/VR/XR and effective graphic communication.

SOFTWARE PROFICIENCIES

BIM & Coordination

Revit Architecture	Advanced
Navisworks	Advanced
Revit MEP	Intermediate
Revit Structure	Intermediate

Architecture

Rhinoceros 3D	Advanced
Dynamo for Revit	Intermediate

Data & Construction

Microsoft Project	Advanced
MATLAB & Simulink	Intermediate

Graphics & CGI

Adobe Creative Suit	Advanced
Corona Renderer	Advanced

LANGUAGE

German	B2
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English	IELTS Band Score 8-C1
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Persian	Native Proficiency
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PROFESSIONAL EXPERIENCE

RENA Engineering & Construction Management, 01/2023 – 01/2025
Birjand, Iran - *Co-Founder*

- Led the design and delivery of LOD 350 BIM models for +10000 m² of residential, office, and commercial spaces utilizing Revit Architecture, Revit MEP, and Navisworks, resulting in a 15% reduction in construction costs.
- Oversaw contract development, site operations, and adherence to HSE regulations for +1000 m² construction projects valued at +5M USD.
- Designed a 450 m² commercial building in the central business district, which led to a 12% increase in property value and a 25% increase in rental income compared to neighboring properties.

Smart-INFrastructure (SMART-IN) Lab, 01/2022 – 01/2023
Tehran, Iran – *Research Associate*

- Developed and published automated computational models to evaluate infrastructure sustainability by leveraging machine learning tools and remotely sensed data.
- Co-authored a study on BIM-sustainability integration, customizing green building assessment tools based on climate to facilitate LEED adaptation for local construction projects.

Melal Hotel Group, 10/2019 – 11/2021
Tehran, Iran - *Freelance BIM Modeler*

- Contributed to the development of an LOD 350 architectural BIM model utilizing Revit and Navisworks for a 27-story hotel with a built-up area of 62,000 m² valued +30M USD.
- Performed clash detection tests in Navisworks and resolved +180 hard clashes through +10 coordination meetings with key project stakeholders.

Contextlogic Architecture Studio, 09/2016 – 09/2018
Tehran, Iran - *Intern Architect*

- Played a key role as the lead delineator for architectural presentations and illustrations in the award-winning "BamLand" project, contributing to its recognition at the Prix Versailles Award.

CERTIFICATIONS

[11/2023]

BIM Certification for Licensed Practitioners

Iran Construction Engineering Organization (IRCEO).

[06/2022]

Engineering Business License Design, Execution, Supervision

Ministry of Housing and Urban Development, Iran

[03/2023]

Revit Certified Tutor

Technical and Vocational Training Organization (TVTO).

[07/2022]

BIM Coordination Certification

Bonro College (Aligned with ISO 19650 Standards & ISO 21001:2018 for Educational Excellence)

[10/2018]

Image Processing with MATLAB

Tehran Institute of Technology.

[06/2018]

MATLAB & Simulink User Certification,

Tehran Institute of Technology.

HONORS & AWARDS

[Canada, 09/2021]

Exhibition at Stantec Gallery

Stantec Gallery, Professional Faculties Building, University of Calgary.

[Canada, 09/2021]

Honorable Mention for CBDX

International Design Competition, University of Calgary.

[France, 12/2018]

Prix Versailles Design Award

Continental Special Prize for an Exterior, as a member of "BamLand" project.

[Iran, 05/2016 & 08/2011]

University Entrance Exam

Ranked in the top 0.5% of 6,300+ (Master's, Architecture) and 2% of 280,000+ (Undergraduate, Math & Physics).

EDUCATION

MBA in Building Sustainability

Expected Graduation Date: 03/2026

Technische Universität Berlin, Germany

First Semester

- **[Technology Course]** Final project – Analytical Study on STIEBEL ELTRON Heat Pumps: COP in different climatic conditions and energy efficiency.
- **[Economics Course]** Final paper – Smart Cities and Economic Resilience: The Role of Technological Innovations in Berlin's Urban Sustainability Agenda.
- **[Business Course]** Analysis of the Veolia in Facility Management Industry: Market Dynamics, Market Share, Business Models, and Competitive Strategies.

Master of Project and Construction Management

07/2019

University of Tehran, Faculty of Architecture, Iran

GPA: 1.0 (18.47/20) - 32 credits.

- Recipient of Dean's List Academic Achievement Award, Ranked 1st
- **[Thesis Title]** Automated Sustainability Assessment of Infrastructure Projects Using Machine Learning Algorithms and Publicly Available Datasets. Developed ML tools for sustainability assessment using MATLAB, Simulink, and Python.
- **Project for [New Construction Technologies]** Created BIM Models for an Existing Building Using Different Data Capturing Methods.
- **Project for [New Construction Technologies]** Created

Bachelor of Science in Architectural Engineering


07/2015


Shiraz University, School of Architecture, Iran


GPA: 1.0 (17.86/20) - 142 credits.

- **[Thesis Project]** Designed a Desert Eco-Camp integrating local cultural, social, and economic aspects, delivering architectural drawings, BOQ sheets, and realistic static/AR/VR visualizations using Revit and Grasshopper for parametric façade design.
- **[Architecture Design Studio 5]** Developed the concept for a metro system with double-deck tunnel and delivered architecture & structural Revit models.

JOURNAL PUBLICATIONS

Shamshirgaran, A., Nourzad, S. H. H., Keshtkar, H., Golabchi, M., & Sadeghi, M. (2022). Large-scale automated sustainability assessment of infrastructure projects using machine learning algorithms with multisource remote sensing data. Journal of Infrastructure Systems (ASCE), 28(4), 04022028. [Link](#) 

Sadeghi, M., Naghedi, R., Behzadian, K., Shamshirgaran, A., Tabrizi, M. R., & Maknoon, R. (2022). Customisation of green buildings assessment tools based on climatic zoning and experts' judgement using K-means clustering and fuzzy AHP. Building and Environment, 109473. [Link](#) 

Shamshirgaran, Amiradel and Hosseini Nourzad, Seyed Hossein, 2018, Automated Sustainability Assessment of Natural World in Infrastructure Projects: A Machine Learning Approach. International Conference on Natural Resources Management in Developing Countries, University of Tehran, Iran. [Link](#) 

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