Arman Nikkhah Dehnavi

Data analyst in building science

EXECUTIVE SUMMARY

Arman Nikkhah Dehnavi is a data analyst and computer programmer with 7 years of experience in Iran. He has a Master's degree in Building Science and has worked on different research projects that require knowledge in both building science and data science. Moreover, he works as a lecturer in data science for building science in the international building performance simulation association(IBPSA) for 2 years. Also he tries to develop a several web-based software to make building performance evaluations easier.

EDUCATION

MASTER OF SCIENCE-BUILDING SCIENCE
Shahid beheshti university
2020-2023

BACHELOR OF ARCHITECTURE
Art university of isfahan
2015-2020

DIPLOMA-MATHEMATICS
SHEIKH ANSARI
2011 - 2015

EXPERIENCE

LECTURER IN DATA SCIENCE IN BUILDING SCIENCE
IBPSA, Iran, Tehran | 2021 – Presente

RESEARCHE ASSISTANT
Innovation center of architecture and urban planning- shahid beheshti university. | 2022 – presente

TECHNICAL ASSISTANT
Innovation center of architecture and urban planning- shahid beheshti university. | 2022 - presente

PYTHON DEVELOPER AND JUNIOR DATA SCIENTIST
BSPsim startup , Iran, Tehran | 2020 – present

RESEARCHER AND ARDUINO DEVELOPER
Fablab fabino , Iran, Isfahan | 2019- 2021

CO-FOUNDER AND ARCHITECT
more office , Iran, Isfahan | 2015- 2021

RESEARCH INTEREST

Data-driven method in:

- energy consumption analysis
- daylight
- fire evacuation
- acoustic
- Occupant behavior

RESEARCH METHODS

Machine learning (supervised-unsupervised methods)

Structural equation modeling (SEM)

Hypothesis tests

Deep learning methods(CNN-RNN-Gans)

PUBLICATIONS

- **Productivity management of construction machinery in large civil engineering projects of Isfahan Municipality** 13th international progect management conference
- **Estimating the Impact of Occupants' Behaviour on Energy Consumption by Pls-SEM: A Case Study of Pakdel Residential Complex in Isfahan, IRAN** Frontiers in Sustainable Cities
- **Application of Machine Learning Methods in the Analysis of Building Emergency Evacuation at Early Design Stages** 4th International Conference on Civil Engineering, Architecture, Art and Urban Design
- **Feasibility Study for Poverty Alleviation by Energy Production Through Photovoltaic Panels in Underprivileged Areas of Iran (in persian)**journal of renewable and new energy
- **Compilation of structural components estimation method; Case example: steel and concrete moment frame residential buildings in Tehran (in Persian)** The First International Conference on Built Environment in Digital Age
- **Early Design Stage Evaluation of Architectural Factors in Fire Emergency Evacuation of the Buildings Using Pix2Pix and Explainable XGBoost Mode**l Journal of Building Performance Simulation
- **Targeting modular adaptive façade personalization in a shared office space using fuzzy logic and genetic optimization** Journal of Building Engineering

SOFTWARES

python

Building performance simulation software

3d design software

Statistical software