

عنوان مقاله:

Design Reconstruction Using Artificial Intelligence and Machine Learning

محل انتشار:

سومین کنفرانس بین المللی شهر هوشمند، چالش ها و راهبردها (سال: 1402)

تعداد صفحات اصل مقاله: 14

نویسندگان:

Seyed Reza Samaei - ۱. Post-doctoral, Lecturer of Technical and Engineering Faculty, Science and Research Branch, Islamic Azad University, Tehran, Iran

Elham Behdadfar - ۲. Bachelor's degree graduate, primary education field, The department of education region ۹, education of Tehran, Iran

خلاصه مقاله:

Design reconstruction using artificial intelligence (AI) and machine learning (ML) techniques offers a promising approach to automate and enhance the design process across various domains. In this study, we present a comprehensive framework for design reconstruction, encompassing data collection, preprocessing, feature extraction, model selection, training, evaluation, and deployment stages. We discuss the application of AI models, including convolutional neural networks (CNNs), recurrent neural networks (RNNs), and generative adversarial networks (GANs), for reconstructing existing designs or generating new ones based on learned patterns. The proposed framework enables efficient and scalable reconstruction of diverse designs, leading to improved creativity, efficiency, and quality in the design process. We demonstrate the effectiveness of the framework through experimental results and discuss its potential applications in real-world design scenarios. Overall, this study contributes to advancing the state-of-the-art in design reconstruction using AI and ML technologies and provides valuable insights for researchers and practitioners in the field of design automation.

کلمات کلیدی:

Design Reconstruction, Artificial Intelligence (AI), Machine Learning (ML), Convolutional Neural Networks (CNNs), Recurrent Neural Networks ((RNNs), Generative Adversarial Networks (GANs)

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1950330>

