Artificial intelligence in software engineering and inverse

Mohammad Shehab, Laith Abualigah, Muath Ibrahim Jarrah, Osama Ahmad Alomari, Mohammad Sh Daoud

Artificial Intelligence (AI) and Software Engineering are considered as significant fields to solve various problems. However, there are weaknesses in certain problem-solving in each field. Thus, this paper is a broad-based review of using artificial intelligence (AI) to improve software engineering (SE), and vice versa. As well as it intends to review the techniques developed in artificial intelligence from the standpoint of their application in software engineering. The aim of this review is highlighted in how the previous study benefited from incorporating the advantages of both fields. The researchers and practitioners on AI and SE belong to a wide range of audiences from the domains of optimization, engineering, data mining, clustering, etc., who will benefit from this study and areas for potential future research.