Special Issue

Artificial Intelligence and Machine Learning in Software Engineering

Message from the Guest Editor

The next decade will be full of technological advances that will present numerous challenges and opportunities for the software engineering (SE) discipline. The application of artificial intelligence and machine learning (AI/ML) techniques to SE has been extensively studied, but many issues and areas of application remain open for investigation. There is an urgent need to explore the opportunities created by AI/ML to leverage research in the area of SE, as software and application vendors should continue incorporating AI/ML as a differentiating aspect to increase adoption and deliver benefits to their customers and users, as well as improve return on investment and achieve cost savings. Search-based software engineering (SBSE) seeks to reformulate SE challenges as search-based optimization problems, typically through the application of evolutionary algorithms or ML. Leveraging AI for automating the processes of creating, executing, and verifying software testing remains critical for improving the quality of the complex software systems that have become the norm of modern society.

Guest Editor

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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