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Collana	Programming and Software Engineering, , 2945-9168 ; ; 11852
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Soggetti	Computer science Artificial intelligence Software engineering Computer engineering Computer networks Computer simulation Theory of Computation Artificial Intelligence Software Engineering Computer Engineering and Networks Computer Modelling
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Secure Deep Learning Engineering: a Road towards Quality Assurance of Intelligent Systems -- Using DimSpec for Bounded and Unbounded Software Model Checking -- SMTBCF: Efficient Backbone Computing for SMT Formulas -- Automatic verification for node-based visual script notation using model checking -- A Reo Model of Software Defined Networks -- Design of point-and-click user interfaces for proof assistants -- SqlSol: An accurate SQL Query Synthesizer -- Towards Verifying Ethereum Smart Contracts at Intermediate Language Level --

Simulations for ATL with imperfect information -- On the generation of equational dynamic logics for weighted imperative programs -- A Security Calculus for Wireless Networks of Named Data Networking -- Automatic Modularization of Large Programs for Bounded Model Checking -- PDNet: A Programming Language for Software-Defined Networks with VLAN -- Consistency Enforcement for Static First-Order Invariants in Sequential Abstract State Machines -- Probably Approximate Safety Verification of Hybrid Dynamical Systems -- A Formally Verified Algebraic Approach for Dynamic Reliability Block Diagrams -- Reasoning about Universal Cubes in MCMT -- sCompile: Critical Path Identification and Analysis for Smart Contracts -- A Mechanized Theory of Program Refinement -- A Relational Static Semantics for Call Graph Construction -- Solution Enumeration Abstraction - A Modeling Idiom to Enhance a Lightweight Formal Method -- Formal Analysis of Qualitative Long-Term Behaviour in Parametrised Boolean Networks -- Combining Parallel Emptiness Checks with Partial Order Reductions -- A Coalgebraic Semantics Framework for Quantum Systems -- Parameterized Hardware Verification Through A Term-level Generalized Symbolic Trajectory Evaluation -- An Axiomatisation of the Probabilistic λ -Calculus -- Synthesizing Nested Ranking Functions for Loop Programs via SVM -- A First Step in the Translation of Alloy to Coq -- Assessment of a Formal Requirements Modeling Approach on a Transportation System -- Design Model Repair with Formal Verification -- A Performance-Sensitive Malware Detection System on Mobile Platform -- Certifying Hardware Model Checking Results -- A Note on Failure Mode Reasoning -- Robustness of Piece-wise Linear Neural Network with Feasible Region Approaches -- Formal Specification and Verification of Smart Contracts -- Spatio-Temporal Specification Language for Cyber-Physical Systems -- A Modeling Framework of Cyber-Physical-Social Systems with Human Behavior Classification based on Machine Learning.

Sommario/riassunto

This book constitutes the proceedings of the 21st International Conference on Formal Engineering Methods, ICFEM 2019, held in Shenzhen, China, in November 2019. The 28 full and 8 short papers presented in this volume were carefully reviewed and selected from 94 submissions. They deal with the recent progress in the use and development of formal engineering methods for software and system design and record the latest development in formal engineering methods. .
