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Cyber Security Cryptography and Machine Learning

Third International Symposium, CSCML 2019
Beer-Sheva, Israel, June 27–28, 2019
Proceedings

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Preface

CSCML, the International Symposium on Cyber Security Cryptography and Machine Learning, is an international forum for researchers, entrepreneurs, and practitioners in the theory, design, analysis, implementation, or application of cyber security, cryptography, and machine learning systems and networks, and, in particular, of conceptually innovative topics in these research areas.

Information technology has become crucial to our everyday lives, an indispensable infrastructure of our society and therefore a target for attacks by malicious parties. Cyber security is one of the most important fields of research today because of these developments. Two of the (sometimes competing) fields of research, cryptography and machine learning, are the most important building blocks of cyber security.

Topics of interest for CSCML include: cyber security design; secure software development methodologies; formal methods, semantics, and verification of secure systems; fault tolerance, reliability, availability of distributed secure systems; game-theoretic approaches to secure computing; automatic recovery self-stabilizing, and self-organizing systems; communication, authentication and identification security; cyber security for mobile and Internet of Things; cyber security of corporations; security and privacy for cloud, edge, and fog computing; cryptocurrency; Blockchain; cryptography; cryptographic implementation analysis and construction; secure multi-party computation; privacy-enhancing technologies and anonymity; post-quantum cryptography and security; machine learning and Big Data; anomaly detection and malware identification; business intelligence and security; digital forensics, digital rights management; trust management and reputation systems; and information retrieval, risk analysis, DoS.

The Third CSCML took place during June 27–28, 2019, in Beer-Sheva, Israel. This year the conference was organized in cooperation with the International Association for Cryptologic Research (IACR) and selected papers will appear in a dedicated special issue in the journal *Information and Computation*.

This volume contains 18 contributions selected by the Program Committee and ten brief announcements. All submitted papers were read and evaluated by Program Committee members, assisted by external reviewers. We are grateful to the EasyChair system in assisting the reviewing process.

The support of Ben-Gurion University of the Negev (BGU), in particular the BGU-NHSA, BGU Lynne and William Frankel Center for Computer Science, the BGU Cyber Security Research Center, Oracle, ATSMA, the Department of Computer Science, Tata Consultancy Services, IBM and BaseCamp, is also gratefully acknowledged.

March 2019

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Organization

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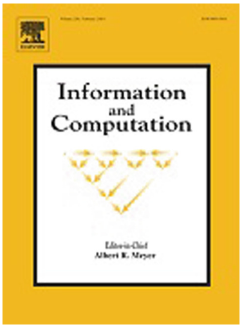

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