







2013 年全国百强科技期刊 2015 年全国百强科技期刊

中国精品科技期刊

中国计算机学会会

软 件 学 报

(Ruanjian Xuebao)

第 31 卷第 8 期 2020 年 8 月

目 次

面向新兴系统的形式化建模与验证方法专题
面向新兴系统的形式化建模与验证方法专题前言
一种包解析器硬件配置描述语言及其编译结构
高阶类型化可验证应用系统体系结构建模及案例 李小平 乌尼日其其格 马世龙 吕江花 (2309) PaxosStore 中共识协议 TPaxos 的推导、规约与精化 ————————————————————————————————————
基于 Coq 的 Paxos 形式化建模与验证 ————————————————————————————————————
系统软件与软件工程
机器学习赋能的软件自适应性综述
代数次数的求解算法及其在 SIMON-like 算法中的应用
维度语音情感识别研究综述 李海峰 陈 婧 马 琳 薄洪健 徐 聪 李洪伟 (2465)
基于用户和产品表示的情感分析和评论质量检测联合模型
一种基于录制/重放的 Android 应用众包测试方法
基于对称正定流形潜在稀疏表示分类算法
数据库技术
大规模路网图下关键词覆盖最优路径查询优化 郝晋瑶 牛保宁 康家兴 (2543) 基于双层协同的联盟区块链隐私数据保护方法 蔡 亮 端 豪 鄢 萌 夏 鑫 (2557)
计算机网络与信息安全
基于意图的网络研究综述李福亮 范广宇 王兴伟 刘树成 谢 坤 孙 琼 (2574)
计算机图形学与计算机辅助设计
面向医学图像分割的半监督条件生成对抗网络
操作系统
面向异构融合处理器的性能分析、优化及应用综述

期刊基本参数: CN11-2560/TP*1990*m*16*344*zh+en*P*¥70*2020*19*2020-08

Contents

SPECIAL TOPIC ON FORMAL MODELING AND VERIFICATION FOR EMERGING SOFTWARE SYSTEMS

2283	Preface
	CHEN Zhen-Bang, FENG Xin-Yu, LIU Zhi-Ming
2285	Specification Language for Packet Parsers and Its Compiler Architecture
	LI Huang-Hua, LI Ling, ZHAO Yu, WANG Sheng-Yuan, LI Xiang-Yu
2309	High-order Typed Verifiable Application System Architecture Modelling and Its Case
	LI Xiao-Ping, WUNIRI Qi-Qi-Ge, MA Shi-Long, LÜ Jiang-Hua
2336	TPaxos Consensus Protocol in PaxosStore: Derivation, Specification, and Refinement
	YI Xing-Chen, WEI Heng-Feng, HUANG Yu, QIAO Lei, LÜ Jian
2362	Formal Modeling and Verification of Paxos Based on Coq
	LI Ya-Nan, DENG Yu-Xin, LIU Jing
2375	Operating System Task Management Requirements Layer Modeling and Verification Based on Coq
	JIANG Jing-Jing, QIAO Lei, YANG Meng-Fei, YANG Hua, LIU Bo
2388	Bounded Model Checking Liveness on Basic Parallel Processes

TAN Jin-Hao, LI Guo-Qiang SYSTEM SOFTWARE AND SOFTWARE ENGINEERING

2404	Survey of Machine Learning Enabled Software Self-adaptation
	ZHANG Ming-Yue, JIN Zhi, ZHAO Hai-Yan, LUO Yi-Xing
2432	Research Progress on Software Bug Localization Technology Based on Information Retrieval
	ZHANG Yun, LIU Jia-Kun, XIA Xin, WU Ming-Hui, YAN Hui
2453	Algorithms for Solving Algebraic Degree and Its Applications to SIMON-like Algorithms
	REN Jiong-Jiong, LI Hang, LIN Jian, CHEN Shao-Zhen

PATTERN RECOGNITION AND ARTIFICIAL INTELLIGENCE

2465	Dimensional Speech Emotion Recognition Review
	LI Hai-Feng, CHEN Jing, MA Lin, BO Hong-Jian, XU Cong, LI Hong-Wei
2492	Joint Model for Sentiment Analysis and Review Quality Detection with User and Product Representations
	WU Fan, WANG Zhong-Qing, ZHOU Xia-Bing, ZHOU Guo-Dong
2508	Crowdsourcing Test Method for Android Applications Based on Recording/Replay
	CAO Yu-Zhong, WU Guo-Quan, CHEN Wei, WEI Jun, HUANG Tao, WANG Su
2530	Latent Sparse Representation Classification Algorithm Based on Symmetric Positive Definite Manifold
	CHEN Kai-Xuan, WU Xiao-Jun

DATABASE TECHNOLOGY

2543	Optimization of Keyword-aware Optimal Route Query on Large-scale Road Networks
	HAO Jin-Yao, NIU Bao-Ning, KANG Jia-Xing
2557	Private Data Protection Scheme for Consortium Blockchain Based on Two-layer Cooperation
	CAI Liang, Duan Hao, YAN Meng, XIA Xin

COMPUTER NETWORKS AND INFORMATION SECURITY

2574 State-of-the-art Survey of Intent-based Networking

LI Fu-Liang, FAN Guang-Yu, WANG Xing-Wei, LIU Shu-Cheng, XIE Kun, SUN Qiong

COMPUTER GRAPHICS AND COMPUTER AIDED DESIGN

2588 Medical Image Segmentation Using Semi-supervised Conditional Generative Adversarial Nets LIU Shao-Peng, HONG Jia-Ming, LIANG Jie-Peng, JIA Xi-Ping, OUYANG Jia, YIN Jian

OPERATING SYSTEM

2603 Survey on Performance Analysis, Optimization, and Applications of Heterogeneous Fusion Processors ZHANG Feng, ZHAI Ji-Dong, CHEN Zheng, LIN Jia-Zao, DU Xiao-Yong

© Copyright 2020, Institute of Software, the Chinese Academy of Sciences. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form without the prior written permission of the Institute of Software, the Chinese Academy of Sciences.