



中国计算机学会会刊

软件学报 (Ruanjian Xuebao)

第 32 卷第 5 期 2021 年 5 月

目 次

# 面向持续软件工程的微服务架构技术专题

面向持续软件工程的微服务架构技术专题前言 张 贺 王忠杰 陈连平 彭 鑫 (1229) 基于混沌工程的微服务韧性风险识别和分析	1
<ul> <li>小血往来究的提出跟踪至白志级据的存储设计</li> <li>小血、花 勇 汪 浩 任 天 顾胜晖 孙佳林 (1302)</li> <li>基于多源特征空间的微服务可维护性评估 晋武侠 钟定洪 张宇云 杨名帆 刘 烃 (1322)</li> <li>多版本共存的微服务系统自适应演化方法 贺 祥 刘 磊 涂志莹 徐晓飞 (1341)</li> <li>算法设计与分析</li> </ul>	
可满足性问题中信念传播算法的收敛性分析	I
程序智能合成技术研究进展 顾 斌 于 波 董晓刚 李晓锋 钟睿明 杨孟飞 (1373) 基于完全有限前缀展开的行为等价过程树生成算法朱 锐 黄 月 金 芝 李 形 汤雅惠 (1385)	
<b>模式识别与人工智能</b> 可信机器学习的公平性综述	
·····································	1
具有万有引力加速机理的布谷鸟搜索算法 · · · · · · · · · · · · · · · · · ·	1
面向智能攻击的行为预测研究	
高斯卷积角:用于叶片图像检索的形状描述不变量 陈 鑫 王 斌 姬子恒 (1565)	I

期刊基本参数: CN11-2560/TP\*1990\*m\*1\*352\*zh+en\*P\*¥70\*2021\*18\*2021-05

# Journal of Software

# Contents

SPECIAL TOPIC ON CONTINUOUS SOFTWARE ENGINEERING ORIENTED MICROSERVICE ARCHITECTURE AND TECHNOLOGY

- 1229 Preface
  - ZHANG He, WANG Zhong-Jie, CHEN Lian-Ping, PENG Xin
- 1231 Microservice Resilience Risk Identification and Analysis Based on Chaos Engineering *YIN Kang-Lin, DU Qing-Feng*
- 1256 Evaluation Framework for Development Organizations' Adaptability to Micro-services Architecture *CUI Hai-Tao, ZHANG Cheng, DING Xiang, CAO Ling-Li, YANG Yun*
- 1284 Optimized Dataflow-driven Approach for Microservices-oriented Decomposition LI Shan-Shan, RONG Guo-Ping, GAO Qiu-Ya, SHAO Dong
- 1302 Storage Design of Tracing-logs for Application Performance Management System YOU Yong, WANG Hao, REN Tian, GU Sheng-Hui, SUN Jia-Lin
- 1322 Microservice Maintainability Measurement Based on Multi-sourced Feature Space JIN Wu-Xia, ZHONG Ding-Hong, ZHANG Yu-Yun, YANG Ming-Fan, LIU Ting
- 1341 Self-adaptative Evoluationary Method of Multi-version Coexisting Microservice Systems HE Xiang, LIU Lei, TU Zhi-Ying, XU Xiao-Fei

#### ALGORITHM DESIGN AND ANALYSIS

1360 Convergence Analysis of Belief Propagation Algorithm for Satisfiability Problem WANG Xiao-Feng, XU Dao-Yun, YANG De-Ren, JIANG Jiu-Lei, LI Qiang, LIU Xin-Xin

### SYSTEM SOFTWARE AND SOFTWARE ENGINEERING

- 1373 Intelligent Program Synthesis Techniques: Literature Review *GU Bin, YU Bo, DONG Xiao-Gang, LI Xiao-Feng, ZHONG Rui-Ming, YANG Meng-Fei*
- 1385 Generating Algorithm for the Behavior Equivalent Process Tree Based on Complete Finite Prefix Unfolding ZHU Rui, HUANG Yue, JIN Zhi, LI Tong, TANG Ya-Hui

## PATTERN RECOGNITION AND ARTIFICIAL INTELLIGENCE

- 1404 Survey on Fairness in Trustworthy Machine Learning LIU Wen-Yan, SHEN Chu-Yun, WANG Xiang-Feng, JIN Bo, LU Xing-Jian, WANG Xiao-Ling, ZHA Hong-Yuan, HE Ji-Feng
- 1427 Overview and Prospect of Deep Learning for Image Segmentation in Digital Pathology SONG Jie, XIAO Liang, LIAN Zhi-Chao, CAI Zi-Yun, JIANG Guo-Ping
- 1461 Survey on Trajectory Representation Learning Techniques CAO Han-Lin, TANG Hai-Na, WANG Fei, XU Yong-Jun
- 1480 Cuckoo Search Algorithm with Gravitational Acceleration Mechanism *FU Wen-Yuan*

#### **COMPUTER NETWORKS AND INFORMATION SECURITY**

- 1495 Research Progress on Attack and Defense Techniques in Block-chain System TIAN Guo-Hua, HU Yun-Han, CHEN Xiao-Feng
- 1526 Research on Behavior-Prediction for Intelligent Attacks MA Yu-Xi, ZHANG Quan-Xin, TAN Yu-An, SHEN Meng
- 1547 Inter-domain Access Control Model Based on Blockchain ZHANG Jian-Biao, ZHANG Zhao-Qian, XU Wan-Shan, WU Na

#### **COMPUTER GRAPHICS AND COMPUTER AIDED DESIGN**

1565 Gaussian Convolution Angle: Shape Description Invariant for Leaf Image Retrieval CHEN Xin, WANG Bin, JI Zi-Heng

© Copyright 2021, 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.