

CONTENTS

PROCEEDINGS OF THE 4TH INTERNATIONAL WORKSHOP AT AUA, COLLEGE OF SCIENCE & ENGINEERING ON DATA SCIENCE AND RELIABLE MACHINE LEARNING

Preface

Hajian, A., Baloian, N., Inoue, T., and Luther, W. v

DATA SCIENCE AND INFORMATION THEORETIC APPROACHES FOR SMART SYSTEMS AND

COMPUTER SYSTEM ORGANIZATION x

Outer Bound for Rate-Reliability-Equivocation Region of Compound Wiretap Channel with Informed Terminals

Haroutunian, M. 1

Application of Identification Codes to the Two-Party Privacy-Preserving Record Linkage (PPRL)

Chen, Y. 7

An Automated Approach to Collecting and Labeling Time Series Data for Event Detection Using Elastic Node Hardware

Ling, T., Mansour, I., Qian, C., and Schiele, G. 23

Towards Training DNNs with Quantized Parameters

Buron, L., Einhaus, L., Erbslöh, A., and Schiele, G. 35

HUMAN-CENTERED COMPUTING—RELIABLE MACHINE LEARNING 45

Ensembling Machine Learning Models for Malware Detection

Galdames, P., Gutiérrez-Soto, C., and Palomino, M. 47

Design of Feedback for a System to Support Distance Project-Based Learning

Sasaki, K. and Inoue, T. 61

Orientation-Dependent Chord Length Distribution Functions of Bounded Convex Domains

Aharonyan, N. G. and Ohanyan, V. K. 77

Assessing Glaucoma Online Tools

Baloian, N. and Luther, W. 82

Color Image Enhancement with Quaternion Fourier Transform-Based Alpha-Rooting <i>Vardazaryan, A. and Grigoryan, A.</i>	93
Novel Gradient-Based Retinex Method for Image Enhancement <i>Bayramyan A. and Grigoryan, A.</i>	101
Fairness in the Use of Medical Online Tools <i>Luther, W. and Harutyunyan A.</i>	109
Exploring Design Aspects of an AI-supported Farming Platform <i>Mikayelyan A. and Harutyunyan, A.</i>	120
INTERPRETABILITY IN MACHINE LEARNING MODELS	125
An Explainable Clustering Algorithm using Dempster-Shafer Theory <i>Valdivia, R., Baloian, N., Chahverdian, M., Adamyan, A., and Harutyunyan, A.</i>	126
Embedded Interpretable Regression using Dempster-Shafer Theory <i>Baloian, N., Davtyan, E., Petrosyan, K., Poghosyan, A., Harutyunyan, A., and Peñafiel, S.</i>	131
Improving the DSGD Classifier with an Initialization Technique for Mass Assignment Functions <i>Tarkhanyan, A. and Harutyunyan, A.</i>	137
An Empirical Analysis of Feature Engineering for Dempster-Shafer Classifier as a Rule Validator <i>Baloyan, A., Aramyan, A., Baloian, N., Poghosyan, A., Harutyunyan, A., and Peñafiel, S.</i>	143
Interpretability of Machine Learning Models in the Insurance Sector <i>Sargsyan, A.</i>	153