

A Complete Bibliography of *ACM/IMS Transactions on Data Science (TDS)*

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17 February 2022
Version 1.02

Title word cross-reference

3 [ZLJC21]. *K* [AAUQ21].
-Subset [AAUQ21].
Abstractive [SKRR21]. **across** [GLZY20].
Active [NGMQ20]. **Activity** [YZL⁺20].
Adaptive [XFW⁺20]. **Addition** [YLY20].
Adversarial [DLZ⁺21]. **Air** [LNZ21].
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Anomaly [ZCCB21]. **Anonymizing** [WLM20]. **Apache** [ZLZ⁺20]. **Application** [JWK⁺21]. **Applications** [AAUQ21, BL20, DZWL20, ZS21].
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Windows [BCB⁺21]. **Winners** [CDK⁺21].

Word [TSS20].

References

Agarwal:2021:STS

- [AAUQ21] Mridul Agarwal, Vaneet Aggarwal, Abhishek K. Umrawal, and Christopher J. Quinn. Stochastic top K -subset bandits with linear space and non-linear feedback with applications to social influence maximization. *ACM Transactions on Data Science (TDS)*, 2(4):38:1–38:39, November 2021. CODEN ????? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3507787>.

- [AL20] **Arabghalizi:2020:DDB**
Tahereh Arabghalizi and Alexandros Labrinidis. Data-driven bus crowding prediction models using context-specific features. *ACM Transactions on Data Science (TDS)*, 1(3):23:1–23:33, October 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3406962>.
- [BCB⁺21] **Babicheva:2021:EVR**
Tatiana Babicheva, Matej Cebecauer, Dominique Barth, Wilco Burghout, and Leïla Kloul. Empty vehicle redistribution with time windows in autonomous taxi systems. *ACM Transactions on Data Science (TDS)*, 2(1):5:1–5:22, January 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3416915>.
- [BCC⁺21] **Behrens:2021:DCC**
Hans Walter Behrens, K. Selçuk Candan, Xilun Chen, Yash Garg, Mao-Lin Li, Xinsheng Li, Sicong Liu, Maria Luisa Sapino, Md Shadab, Dalton Turner, and Magesh Vijayakumaren. DataS-torm: Coupled, continuous simulations for complex urban environments. *ACM Transactions on Data Science (TDS)*, 2(3):19:1–19:37, August 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3447572>.
- [BFDS20] **Bessa:2020:EDM**
Aline Bessa, Juliana Freire, Tamraparni Dasu, and Divesh Sri-vastava. Effective discovery of meaningful outlier relationships. *ACM Transactions on Data Science (TDS)*, 1(2):12:1–12:33, July 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3385192>.
- [BL20] **Beigi:2020:SPS**
Ghazaleh Beigi and Huan Liu. A survey on privacy in social media: Identification, mitigation, and applications. *ACM Transactions on Data Science (TDS)*, 1(1):7:1–7:38, March 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/abs/10.1145/3343038>.
- [BVS⁺20] **Busany:2020:IBQ**
Nimrod Busany, Han Van Der Aa, Arik Senderovich, Avigdor Gal, and Matthias Weidlich. Interval-based queries over lossy IoT event streams. *ACM Transactions on Data Science (TDS)*, 1(4):27:1–27:27, December 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3385191>.
- [CAG20] **Chowdhury:2020:RTP**
Ranak Roy Chowdhury, Muhammad Abdullah Adnan, and Rakesh K. Gupta. Real-time principal component analysis. *ACM Transactions on Data Science (TDS)*, 1(2):10:1–10:36, July 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3374750>.

Chakraborty:2021:ATN

- [CDK⁺21] Vishal Chakraborty, Theo Delemazure, Benny Kimelfeld, Phokion G. Kolaitis, Kunal Relia, and Julia Stoyanovich. Algorithmic techniques for necessary and possible winners. *ACM Transactions on Data Science (TDS)*, 2(3):22:1–22:23, August 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3458472>.

Cheng:2021:MTP

- [CGS⁺21] Lu Cheng, Ruocheng Guo, Yasin N. Silva, Deborah Hall, and Huan Liu. Modeling temporal patterns of cyberbullying detection with hierarchical attention networks. *ACM Transactions on Data Science (TDS)*, 2(2):8:1–8:23, May 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3441141>.

Chakraborty:2020:EDA

- [CPAS20] Tanmoy Chakraborty, Noseong Park, Ayush Agarwal, and V. S. Subrahmanian. Ensemble detection and analysis of communities in complex networks. *ACM Transactions on Data Science (TDS)*, 1(1):2:1–2:34, March 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/abs/10.1145/3313374>.

Dey:2021:SRC

- [DBR21] Paramita Dey, Subhayan Bhat-tacharya, and Sarbani Roy. A survey on the role of centrality as

seed nodes for information propagation in large scale network. *ACM Transactions on Data Science (TDS)*, 2(3):24:1–24:25, August 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3465374>.

Desmet:2021:RDP

- [DC21] Chance Desmet and Diane J. Cook. Recent developments in privacy-preserving mining of clinical data. *ACM Transactions on Data Science (TDS)*, 2(4):28:1–28:32, November 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3447774>.

Ding:2021:DPD

- [DCZ⁺21] Xiaofeng Ding, Lin Chen, Pan Zhou, Wenbin Jiang, and Hai Jin. Differentially private deep learning with iterative gradient descent optimization. *ACM Transactions on Data Science (TDS)*, 2(4):34:1–34:27, November 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3491254>.

Du:2021:AED

- [DLZ⁺21] Zhekai Du, Jingjing Li, Lei Zhu, Ke Lu, and Heng Tao Shen. Adversarial energy disaggregation. *ACM Transactions on Data Science (TDS)*, 2(4):27:1–27:16, November 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3477301>.

Ding:2020:TAH

- [DZWL20] Weilong Ding, Zhuofeng Zhao, Jianwu Wang, and Han Li. Task allocation in hybrid big data analytics for urban IoT applications. *ACM Transactions on Data Science (TDS)*, 1(3):18:1–18:22, October 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3374751>.

Elbassuoni:2020:FSO

- [EAYG20] Shady Elbassuoni, Sihem Amer-Yahia, and Ahmad Ghizzawi. Fairness of scoring in online job marketplaces. *ACM Transactions on Data Science (TDS)*, 1(4):29:1–29:30, December 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3402883>.

Fang:2020:HHR

- [FZL⁺20] Liming Fang, Hongwei Zhu, Boqing Lv, Zhe Liu, Weizhi Meng, Yu Yu, Shouling Ji, and Zehong Cao. HandiText: Handwriting recognition based on dynamic characteristics with incremental LSTM. *ACM Transactions on Data Science (TDS)*, 1(4):25:1–25:18, December 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3385189>.

Gramaglia:2021:GTP

- [GFFS21] Marco Gramaglia, Marco Fiore, Angelo Furno, and Razvan Stanica. GLOVE: Towards privacy-preserving publishing of record-level-truthful mobile phone trajectories. *ACM Transactions*

on Data Science (TDS), 2(3):21:1–21:36, August 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3451178>.

Gao:2021:MGD

- [GLD⁺21] Hongchao Gao, Yujia Li, Jiao Dai, Xi Wang, Jizhong Han, and Ruixuan Li. Multi-granularity deep local representations for irregular scene text recognition. *ACM Transactions on Data Science (TDS)*, 2(2):15:1–15:18, May 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3446971>.

Gan:2020:UMA

- [GLZY20] Wensheng Gan, Jerry Chun-Wei Lin, Jiexiong Zhang, and Philip S. Yu. Utility mining across multi-sequences with individualized thresholds. *ACM Transactions on Data Science (TDS)*, 1(2):8:1–8:29, July 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3362070>.

Gao:2021:QTN

- [GYZ⁺21] Yuan Gao, Laurence T. Yang, Dehua Zheng, Jing Yang, and Yaliang Zhao. Quantized tensor neural network. *ACM Transactions on Data Science (TDS)*, 2(4):33:1–33:18, November 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3491255>.

Hu:2020:ISI

- [HSC20] Haibo Hu, Rik Sarkar, and Zhengzhang Chen. Introduction

- to the special issue on retrieving and learning from Internet of Things data. *ACM Transactions on Data Science (TDS)*, 1(4):24:1, December 2020. CODEN ????? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3426368>.
- [ILI⁺21] Srinivasan Iyengar, Stephen Lee, David Irwin, Prashant Shenoy, and Benjamin Weil. WattScale: a data-driven approach for energy efficiency analytics of buildings at scale. *ACM Transactions on Data Science (TDS)*, 2(1):3:1–3:25, January 2021. CODEN ????? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3406961>.
- [JSF⁺21] Renhe Jiang, Xuan Song, Zipei Fan, Tianqi Xia, Zhaonan Wang, Qunjun Chen, Zekun Cai, and Ryosuke Shibasaki. Transfer urban human mobility via POI embedding over multiple cities. *ACM Transactions on Data Science (TDS)*, 2(1):4:1–4:26, January 2021. CODEN ????? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3416914>.
- [JWK⁺21] Xiaowei Jia, Jared Willard, Anuj Karpatne, Jordan S. Read, Jacob A. Zwart, Michael Steinbach, and Vipin Kumar. Physics-guided machine learning for scientific discovery: an application in simulating lake temperature profiles. *ACM Transactions on Data Science (TDS)*, 2(3):20:1–20:26, May 2021. CODEN ????? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3447814>.
- [LBZB20] Yanhua Li, Jie Bao, Zhi-Li Zhang, and Saif Benjaafar. Introduction to the special issue on urban computing and smart cities. *ACM Transactions on Data Science (TDS)*, 1(3):14:1–14:2, October 2020. CODEN ????? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3412392>.
- [LBZB21] Yanhua Li, Jie Bao, Zhi-Li Zhang, and Saif Benjaafar. Introduction to the special issue on urban computing and smart cities. *ACM Transactions on Data Science (TDS)*, 2(1):2e:1–2e:2, January 2021. CODEN ????? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3441679>.
- [LCZ⁺20] Guohui Li, Qi Chen, Bolong Zheng, Hongzhi Yin, Quoc Viet Hung Nguyen, and Xiaofang Zhou. Group-based recurrent neural networks for POI recommendation. *ACM Transactions on Data Science (TDS)*, 1(1):3:1–3:18, March 2020. CODEN ????? ISSN 2691-1922. URL <https://dl.acm.org/doi/abs/10.1145/3343037>.
- [LHJ20] Xiangyang Li, Luis Herranz, and Shuqiang Jiang. Multifaceted

Iyengar:2021:WDD

Jiang:2021:TUH

Jia:2021:PGM

Li:2020:ISI

Li:2021:ISI

Li:2020:GBR

Li:2020:MAF

- analysis of fine-tuning in a deep model for visual recognition. *ACM Transactions on Data Science (TDS)*, 1(1):4:1–4:22, March 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/abs/10.1145/3319500>. **Liu:2021:SBU**
- [LNZ21] Xiuming Liu, Edith Ngai, and Dave Zachariah. Scalable belief updating for urban air quality modeling and prediction. *ACM Transactions on Data Science (TDS)*, 2(1):2:1–2:19, January 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3402903>. **Liu:2021:DHB**
- [LKW⁺20] Yan Li, Pratik Kotwal, Pengyue Wang, Yiqun Xie, Shashi Shekhar, and William Northrop. Physics-guided energy-efficient path selection using on-board diagnostics data. *ACM Transactions on Data Science (TDS)*, 1(3):22:1–22:28, October 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3406596>. **Li:2020:PGE**
- [LWG⁺21] Yu Liu, Yangtao Wang, Lianli Gao, Chan Guo, Yanzhao Xie, and Zhili Xiao. Deep hash-based relevance-aware data quality assessment for image dark data. *ACM Transactions on Data Science (TDS)*, 2(2):11:1–11:26, May 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3420038>. **Li:2020:TTR**
- [LLC⁺20] Huan Li, Hua Lu, Gang Chen, Ke Chen, Qinkuang Chen, and Lidan Shou. Toward translating raw indoor positioning data into mobility semantics. *ACM Transactions on Data Science (TDS)*, 1(4):26:1–26:37, December 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3385190>. **Li:2021:TAN**
- [LZYZ21] Yamin Li, Jun Zhang, Zhongliang Yang, and Ru Zhang. Topic-aware neural linguistic steganography based on knowledge graphs. *ACM Transactions on Data Science (TDS)*, 2(2):10:1–10:13, May 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3418598>. **Maji:2021:CUF**
- [LNP21] Yan Leng, Alejandro Noriega, and Alex Pentland. Tourism event analytics with mobile phone data. *ACM Transactions on Data Science (TDS)*, 2(3):25:1–25:22, August 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3479975>. **Leng:2021:TEA**
- [MB21] Subhadip Maji and Smarajit Bose. CBIR using features derived by deep learning. *ACM Transactions on Data Science (TDS)*, 2(3):26:1–26:24, August 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3470568>.

Molinaro:2021:SST

- [MPS⁺21] Cristian Molinaro, Chiara Pulice, Anja Subasic, Abigail Bartolome, and V. S. Subrahmanian. STAR: Summarizing Timed Association Rules. *ACM Transactions on Data Science (TDS)*, 2(1):6:1–6:36, January 2021. CODEN ????. ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3419107>.

Nashaat:2020:AGL

- [NGMQ20] Mona Nashaat, Aindrila Ghosh, James Miller, and Shaikh Quader. Asterisk: Generating large training datasets with automatic active supervision. *ACM Transactions on Data Science (TDS)*, 1(2):13:1–13:25, July 2020. CODEN ????. ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3385188>.

Nashaat:2021:TUR

- [NGMQ21] Mona Nashaat, Aindrila Ghosh, James Miller, and Shaikh Quader. TabReformer: Unsupervised representation learning for erroneous data detection. *ACM Transactions on Data Science (TDS)*, 2(3):18:1–18:29, May 2021. CODEN ????. ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3447541>.

Ooi:2020:IIE

- [Ooi20] Beng Chin Ooi. Inaugural issue editorial. *ACM Transactions on Data Science (TDS)*, 1(1):1:1–1:2, March 2020. CODEN ????. ISSN 2691-1922.

URL <https://dl.acm.org/doi/abs/10.1145/3368254>.

Steadman:2021:KDS

- [SGJ⁺21] Liam Steadman, Nathan Griffiths, Stephen Jarvis, Mark Bell, Shaun Helman, and Caroline Wallbank. kD-STR: a method for spatio-temporal data reduction and modelling. *ACM Transactions on Data Science (TDS)*, 2(3):17:1–17:31, May 2021. CODEN ????. ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3439334>.

Song:2021:PPC

- [SHC⁺21] Jie Song, Qiang He, Feifei Chen, Ye Yuan, and Ge Yu. PoBery: Possibly-complete big data queries with probabilistic data placement and scanning. *ACM Transactions on Data Science (TDS)*, 2(3):23:1–23:28, August 2021. CODEN ????. ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3465375>.

Sainju:2020:MRS

- [SJ20] Arpan Man Sainju and Zhe Jiang. Mapping road safety features from streetview imagery: a deep learning approach. *ACM Transactions on Data Science (TDS)*, 1(3):15:1–15:20, October 2020. CODEN ????. ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3362069>.

Shi:2021:NAT

- [SKRR21] Tian Shi, Yaser Keneshloo, Naren Ramakrishnan, and Chandan K. Reddy. Neural abstractive text

- summarization with sequence-to-sequence models. *ACM Transactions on Data Science (TDS)*, 2(1):1:1–1:37, January 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3419106>.
- [SS20] Stephan Schmeißer and Gregor Schiele. coSense: The collaborative sensing middleware for the Internet-of-things. *ACM Transactions on Data Science (TDS)*, 1(4):28:1–28:21, December 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3395233>.
- [TLL⁺20] Zhihong Tian, Chaochao Luo, Hui Lu, Shen Su, Yanbin Sun, and Man Zhang. User and entity behavior analysis under urban big data. *ACM Transactions on Data Science (TDS)*, 1(3):16:1–16:19, October 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3374749>.
- [TSS20] Christoph Kilian Theil, Sanja Stajner, and Heiner Stuckenschmidt. Explaining financial uncertainty through specialized word embeddings. *ACM Transactions on Data Science (TDS)*, 1(1):6:1–6:19, March 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/abs/10.1145/3343039>.
- [TZW⁺21] Xiancai Tian, Baihua Zheng, Yazhe Wang, Hsiao-Ting Huang, and Chih-Chieh Hung. TRIPDECODER: Study travel time attributes and route preferences of metro systems from smart card data. *ACM Transactions on Data Science (TDS)*, 2(3):16:1–16:21, August 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3430768>.
- [WC20] Gene P. K. Wu and Keith C. C. Chan. Discovery of spatio-temporal patterns in multivariate spatial time series. *ACM Transactions on Data Science (TDS)*, 1(2):11:1–11:22, July 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3374748>.
- [WLM20] Katrina Ward, Dan Lin, and Sanjay Madria. A parallel algorithm for anonymizing large-scale trajectory data. *ACM Transactions on Data Science (TDS)*, 1(1):5:1–5:26, March 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/abs/10.1145/3368639>.
- [XFW⁺20] Xin Xu, Yanjie Fu, Jingyi Wu, Yuqi Wang, Zeyu Huang, Zhiguo Fu, and Minghao Yin. Adaptive weighted finite mixture model: Identifying the feature-influence of real estate. *ACM Transactions on Data Science (TDS)*, 1(3):

Tian:2021:TST

Schmeisser:2020:CCS

Wu:2020:DST

Tian:2020:UEB

Ward:2020:PAA

Theil:2020:EFU

Xu:2020:AWF

20:1–20:16, October 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3379560>.

Xie:2020:UFR

[XS20] Yiqun Xie and Shashi Shekhar. A unified framework for robust and efficient hotspot detection in smart cities. *ACM Transactions on Data Science (TDS)*, 1(3):17:1–17:29, October 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3379562>.

Yang:2021:BRP

[YDZH21] Ru Yang, Yuhui Deng, Yi Zhou, and Ping Huang. Boosting the restoring performance of deduplication data by classifying backup metadata. *ACM Transactions on Data Science (TDS)*, 2(2):13:1–13:16, May 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3437261>.

Yu:2020:MBI

[YLY20] Lei Yu, Guohui Li, and Ling Yuan. Maximizing boosted influence spread with edge addition in online social networks. *ACM Transactions on Data Science (TDS)*, 1(2):9:1–9:21, July 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3364993>.

Yang:2020:MFR

[YXL20] Luoying Yang, Zhou Xu, and Jiebo Luo. Measuring female representation and impact in films

over time. *ACM Transactions on Data Science (TDS)*, 1(4):30:1–30:14, December 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3411213>.

Yang:2020:SAT

[YZL⁺20] Zhong Yang, Bolong Zheng, Guohui Li, Nguyen Quoc Viet Hung, Guanfeng Liu, and Kai Zheng. Searching activity trajectories by exemplar. *ACM Transactions on Data Science (TDS)*, 1(3):19:1–19:18, October 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3379561>.

Zandavi:2021:MUR

[ZCA21] Seid Miad Zandavi, Vera Chung, and Ali Anaissi. Multi-user remote lab: Timetable scheduling using simplex nondominated sorting genetic algorithm. *ACM Transactions on Data Science (TDS)*, 2(2):14:1–14:13, May 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3437260>.

Zoppi:2021:UAD

[ZCCB21] Tommaso Zoppi, Andrea Cecarelli, Tommaso Capecchi, and Andrea Bondavalli. Unsupervised anomaly detectors to detect intrusions in the current threat landscape. *ACM Transactions on Data Science (TDS)*, 2(2):7:1–7:26, May 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3441140>.

Zhang:2021:SIR

- [ZLJC21] Xinyu Zhang, Xiaocui Li, Xiaoyuan Jing, and Li Cheng. Simultaneous image reconstruction and feature learning with 3D-CNNs for image set-based classification. *ACM Transactions on Data Science (TDS)*, 2(2):12:1–12:13, May 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3420037>.

Zeidan:2020:GEL

- [ZLZ+20] Ayman Zeidan, Eemil Lagerspetz, Kai Zhao, Petteri Nurmi, Sasu Tarkoma, and Huy T. Vo. GeoMatch: Efficient large-scale map matching on Apache Spark. *ACM Transactions on Data Science (TDS)*, 1(3):21:1–21:30, October 2020. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3402904>.

Zhang:2021:HSS

- [ZMS+21] Jiaru Zhang, Ruhui Ma, Tao Song, Yang Hua, Zhengui Xue, Chenyang Guan, and Haibing Guan. Hierarchical satellite system graph for approximate nearest neighbor search on big data. *ACM Transactions on Data Science (TDS)*, 2(4):32:1–32:15, November 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3488377>.

Zhou:2021:ISI

- [ZS21] Ke Zhou and Jingkuan Song. Introduction to the special issue on learning-based support for

data science applications. *ACM Transactions on Data Science (TDS)*, 2(2):9:1, May 2021. CODEN ???? ISSN 2691-1922. URL <https://dl.acm.org/doi/10.1145/3450751>.