Pei Dan

List of Publications by Year
in descending order

128 papers	4,329 citations	471509 17 h-index	414414 32 g-index
128 all docs	128 docs citations	128 times ranked	1835 citing authors

#	Article	IF	Citations
1	Robust Anomaly Detection for Multivariate Time Series through Stochastic Recurrent Neural Network. , 2019, , .		488
2	Unsupervised Anomaly Detection via Variational Auto-Encoder for Seasonal KPIs in Web Applications. , 2018, , .		431
3	LogAnomaly: Unsupervised Detection of Sequential and Quantitative Anomalies in Unstructured Logs. , 2019, , .		238
4	Opprentice. , 2015, , .		164
5	The (In)Completeness of the Observed Internet AS-level Structure. IEEE/ACM Transactions on Networking, 2010, 18, 109-122.	3.8	150
6	To Cache or Not to Cache: The 3G Case. IEEE Internet Computing, 2011, 15, 27-34.	3.3	139
7	An analysis of BGP multiple origin AS (MOAS) conflicts. , 2001, , .		105
8	Where the sidewalk ends. , 2009, , .		98
9	BGP-RCN: improving BGP convergence through root cause notification. Computer Networks, 2005, 48, 175-194.	5.1	97
10	Network-aware forward caching. , 2009, , .		79
11	Personalized re-ranking for recommendation. , 2019, , .		75
12	Dynamic TCP Initial Windows and Congestion Control Schemes Through Reinforcement Learning. IEEE Journal on Selected Areas in Communications, 2019, 37, 1231-1247.	14.0	74
13	Unsupervised Detection of Microservice Trace Anomalies through Service-Level Deep Bayesian Networks. , 2020, , .		65
14	A light-weight distributed scheme for detecting ip prefix hijacks in real-time. , 2007, , .		64
15	Characterizing and Improving WiFi Latency in Large-Scale Operational Networks. , 2016, , .		64
16	In search of the elusive ground truth. , 2008, , .		63
17	Unsupervised Anomaly Detection for Intricate KPIs via Adversarial Training of VAE. , 2019, , .		58
18	Localizing Failure Root Causes in a Microservice through Causality Inference. , 2020, , .		54

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19	A light-weight distributed scheme for detecting ip prefix hijacks in real-time. Computer Communication Review, 2007, 37, 277-288.	1.8	52
20	Improving BGP convergence through consistency assertions. , 2002, , .		50
21	Quantifying path exploration in the internet. , 2006, , .		49
22	HotSpot: Anomaly Localization for Additive KPIs With Multi-Dimensional Attributes. IEEE Access, 2018, 6, 10909-10923.	4.2	47
23	Robust and Rapid Clustering of KPIs for Large-Scale Anomaly Detection. , 2018, , .		47
24	Robust and Rapid Adaption for Concept Drift in Software System Anomaly Detection. , 2018, , .		47
25	What happened in my network. , 2010, , .		46
26	G-RCA: A Generic Root Cause Analysis Platform for Service Quality Management in Large IP Networks. IEEE/ACM Transactions on Networking, 2012, 20, 1734-1747.	3.8	46
27	Diagnosing root causes of intermittent slow queries in cloud databases. Proceedings of the VLDB Endowment, 2020, 13, 1176-1189.	3.8	45
28	Device-Agnostic Log Anomaly Classification with Partial Labels. , 2018, , .		42
29	Robust and Unsupervised KPI Anomaly Detection Based on Conditional Variational Autoencoder. , 2018, , .		41
30	Quantifying Path Exploration in the Internet. IEEE/ACM Transactions on Networking, 2009, 17, 445-458.	3.8	40
31	WiFi can be the weakest link of round trip network latency in the wild. , 2016, , .		40
32	Rapid and robust impact assessment of software changes in large internet-based services. , 2015, , .		39
33	Why it takes so long to connect to a WiFi access point. , 2017, , .		39
34	LogTransfer: Cross-System Log Anomaly Detection for Software Systems with Transfer Learning. , 2020, , .		38
35	PreFix. , 2018, , .		36
36	ZeroWall: Detecting Zero-Day Web Attacks through Encoder-Decoder Recurrent Neural Networks. , 2020, , .		35

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37	Quantifying the Extent of IPv6 Deployment. Lecture Notes in Computer Science, 2009, , 13-22.	1.3	35
38	Detection of invalid routing announcement in the Internet. , 0, , .		34
39	An analysis of convergence delay in path vector routing protocols. Computer Networks, 2006, 50, 398-421.	5.1	34
40	Syslog processing for switch failure diagnosis and prediction in datacenter networks. , 2017, , .		33
41	EDUM. , 2016, , .		32
42	Automatic and Generic Periodicity Adaptation for KPI Anomaly Detection. IEEE Transactions on Network and Service Management, 2019, 16, 1170-1183.	4.9	31
43	FUNNEL: Assessing Software Changes in Web-Based Services. IEEE Transactions on Services Computing, 2018, 11, 34-48.	4.6	28
44	A Semantic-aware Representation Framework for Online Log Analysis. , 2020, , .		28
45	LogClass: Anomalous Log Identification and Classification With Partial Labels. IEEE Transactions on Network and Service Management, 2021, 18, 1870-1884.	4.9	28
46	Shedding light on the glue logic of the internet routing architecture. Computer Communication Review, 2008, 38, 39-50.	1.8	27
47	Rapid Deployment of Anomaly Detection Models for Large Number of Emerging KPI Streams. , 2018, , .		27
48	Identifying bad software changes via multimodal anomaly detection for online service systems. , 2021, , .		27
49	Threshold compression for 3G scalable monitoring. , 2012, , .		24
50	FUSO: Fast Multi-Path Loss Recovery for Data Center Networks. IEEE/ACM Transactions on Networking, 2018, 26, 1376-1389.	3.8	24
51	Continuous delivery of personalized assessment and feedback in agile software engineering projects. , 2018, , .		24
52	Real-time incident prediction for online service systems. , 2020, , .		24
53	Generic and Robust Localization of Multi-dimensional Root Causes. , 2019, , .		22
54	LogParse: Making Log Parsing Adaptive through Word Classification. , 2020, , .		22

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55	FluxRank: A Widely-Deployable Framework to Automatically Localizing Root Cause Machines for Software Service Failure Mitigation. , 2019, , .		21
56	CoFlux. , 2019, , .		20
57	Label-Less: A Semi-Automatic Labelling Tool for KPI Anomalies. , 2019, , .		20
58	Detecting Outlier Machine Instances Through Gaussian Mixture Variational Autoencoder With One Dimensional CNN. IEEE Transactions on Computers, 2022, 71, 892-905.	3.4	20
59	A framework for resilient internet routing protocols. IEEE Network, 2004, 18, 5-12.	6.9	19
60	How bad are the rogues' impact on enterprise 802.11 network performance?. , 2015, , .		17
61	Efficient and Robust Syslog Parsing for Network Devices in Datacenter Networks. IEEE Access, 2020, 8, 30245-30261.	4.2	17
62	Automatically and Adaptively Identifying Severe Alerts for Online Service Systems. , 2020, , .		16
63	Protecting BGP routes to top-level DNS servers. IEEE Transactions on Parallel and Distributed Systems, 2003, 14, 851-860.	5.6	15
64	Fetching Popular Data from the Nearest Replica in NDN. , 2016, , .		15
65	Firewall Fingerprinting and Denial of Firewalling Attacks. IEEE Transactions on Information Forensics and Security, 2017, 12, 1699-1712.	6.9	15
66	Collaborative learning between cloud and end devices. , 2019, , .		15
67	Mining causality graph for automatic web-based service diagnosis. , 2016, , .		15
68	Visual-Based Anomaly Detection for BGP Origin AS Change (OASC) Events. Lecture Notes in Computer Science, 2003, , 155-168.	1.3	14
69	FOCUS: Shedding light on the high search response time in the wild. , 2016, , .		14
70	BGP convergence in virtual private networks. , 2006, , .		12
71	G-RCA. , 2010, , .		12
72	Practical and White-Box Anomaly Detection through Unsupervised and Active Learning. , 2020, , .		12

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73	Scalable VPN routing via relaying. , 2008, , .		12
74	Understanding and handling alert storm for online service systems. , 2020, , .		12
75	TowerDefense: Deployment strategies for battling against IP prefix hijacking. , 2010, , .		11
76	Understanding the Impact of AP Density on WiFi Performance Through Real-World Deployment. , 2016, , .		11
77	Reducing Web Latency Through Dynamically Setting TCP Initial Window with Reinforcement Learning. , 2018, , .		11
78	Efficient KPI Anomaly Detection Through Transfer Learning for Large-Scale Web Services. IEEE Journal on Selected Areas in Communications, 2022, 40, 2440-2455.	14.0	11
79	NDN Live Video Broadcasting over Wireless LAN. , 2015, , .		10
80	Rewiring 2 Links Is Enough: Accelerating Failure Recovery in Production Data Center Networks. , 2015, , .		10
81	MobiCamp. , 2016, , .		10
82	Your trajectory privacy can be breached even if you walk in groups. , 2016, , .		9
83	Identifying Root-Cause Metrics for Incident Diagnosis in Online Service Systems. , 2021, , .		9
84	Firewall fingerprinting. , 2012, , .		8
85	Quasi-asynchronous migration. Operating Systems Review (ACM), 1999, 33, 5-14.	1.9	7
86	$mathrm {F^{2}}$ Tree: Rapid Failure Recovery for Routing in Production Data Center Networks. IEEE/ACM Transactions on Networking, 2017, 25, 1940-1953.	3.8	7
87	The DevOps Lab Platform for Managing Diversified Projects in Educating Agile Software Engineering. , 2018, , .		7
88	FluxInfer: Automatic Diagnosis of Performance Anomaly for Online Database System. , 2020, , .		7
89	Design and implementation of a low-overhead file checkpointing approach. , 2000, , .		6
90	A study on the routing convergence of Latin American networks. , 2003, , .		6

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91	A measurement study on BGP AS path looping (BAPL) behavior. , 2014, , .		6
92	Improving the freshness of NDN forwarding states. , 2016, , .		6
93	Interest-suppression-based NDN live video broadcasting over wireless LAN. Frontiers of Computer Science, 2017, 11, 675-687.	2.4	6
94	TCP WISE: One initial congestion window is not enough. , 2017, , .		6
95	Walking Without Friends: Publishing Anonymized Trajectory Dataset Without Leaking Social Relationships. IEEE Transactions on Network and Service Management, 2019, 16, 1212-1225.	4.9	6
96	Where the Sidewalk Ends: Extending theInternet AS Graph Using Traceroutesfrom P2P Users. IEEE Transactions on Computers, 2014, 63, 1021-1036.	3.4	5
97	Analyzing the impact of buffer capacity on crosspoint-queued switch performance. Journal of Communications and Networks, 2016, 18, 523-530.	2.6	5
98	Measuring BGP AS path looping (BAPL) and private AS number leaking (PANL). Tsinghua Science and Technology, 2018, 23, 22-34.	6.1	5
99	The impact of multi-homing on network reliability and stability: a case study. , 0, , .		3
100	Multi-AS cooperative incoming traffic engineering in a transit-edge separate internet. Computer Networks, 2014, 73, 112-127.	5.1	3
101	Unsupervised Clustering through Gaussian Mixture Variational AutoEncoder with Non-Reparameterized Variational Inference and Std Annealing. , 2020, , .		3
102	Robust System Instance Clustering for Large-Scale Web Services. , 2022, , .		3
103	Towards an efficient algorithmic framework for pricing cellular data service. , 2011, , .		2
104	IP Reachability differences: Myths and realities. , 2011, , .		2
105	CQRD: A switch-based approach to flow interference in Data Center Networks. , 2014, , .		2
106	Mining crowd mobility and WiFi hotspots on a densely-populated campus. , 2017, , .		2
107	Latency-based WiFi congestion control in the air for dense WiFi networks. , 2017, , .		2
108	How Much Are Your Neighbors Interfering with Your WiFi Delay?. , 2017, , .		2

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109	You can hide, but your periodic schedule can't. , 2017, , .		2
110	Causal Analysis of the Unsatisfying Experience in Realtime Mobile Multiplayer Games in the Wild. , 2019, , .		2
111	VAEPP: Variational Autoencoder with a Pull-Back Prior. Lecture Notes in Computer Science, 2020, , 366-379.	1.3	2
112	AdCell: Ad Allocation in Cellular Networks. Lecture Notes in Computer Science, 2011, , 311-322.	1.3	2
113	PreFix. Performance Evaluation Review, 2019, 46, 64-66.	0.6	2
114	Scalable monitoring via threshold compression in a large operational 3G network. , 2011, , .		1
115	NetSearch: Googling large-scale network management data. , 2014, , .		1
116	MIFO: Multi-path Interdomain Forwarding. , 2015, , .		1
117	Alleviating flow interference in data center networks through fine-grained switch queue management. Computer Networks, 2015, 91, 593-613.	5.1	1
118	The Frame Latency of Personalized Livestreaming Can Be Significantly Slowed Down by WiFi. , 2018, , .		1
119	PreFix. Performance Evaluation Review, 2019, 46, 64-66.	0.6	1
120	Shallow VAEs with RealNVP Prior can Perform as Well as Deep Hierarchical VAEs. Communications in Computer and Information Science, 2020, , 650-659.	0.5	1
121	A Practical Machine Learning-Based Framework to Detect DNS Covert Communication in Enterprises. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2020, , 1-21.	0.3	1
122	Analyzing failures and attacks in Map & Encap protocols. , 2010, , .		0
123	Application-aware latency monitoring for cloud tenants via CloudWatch+. , 2014, , .		0
124	Narrowing down the debugging space of slow search response time. , 2015, , .		0
125	Learning thresholds for PV change detection from operators' labels. , 2015, , .		0
126	M3: Practical and reliable multi-layer video multicast over multi-rate Wi-Fi network. , 2016, , .		0

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127	Preventing Wi-Fi Privacy Leakage: A User Behavioral Similarity Approach. , 2018, , .		0
128	Designing Buffer Capacity of Crosspoint-Queued Switch. Lecture Notes in Computer Science, 2014, , 35-48.	1.3	0