# Tseng-Yi Chen

List of Publications by Year
in descending order

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|---|---|---|---|
| 71 papers | 285 citations | 1478505<br>6 h-index | 1474206<br>9 g-index |
| 71 all docs | 71 docs citations | 71 times ranked | 225 citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Planting Fast-Growing Forest by Leveraging the Asymmetric Read/Write Latency of NVRAM-Based Systems. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 3304-3317. | 2.7 | 0 |
| 2 | Facilitating external sorting on SMR-based large-scale storage systems. Future Generation Computer Systems, 2021, 116, 333-348. | 7.5 | 4 |
| 3 | Brief Industry Paper: An Energy-Reduction On-Chip Memory Management for Intermittent Systems. , 2021, , . | | 3 |
| 4 | Enabling Write-Reduction Multiversion Scheme With Efficient Dual-Range Query Over NVRAM. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2021, 29, 1244-1256. | 3.1 | 1 |
| 5 | Beyond Write-Reduction Consideration: A Wear-Leveling-Enabled Bâ-Tree Indexing Scheme Over an NVRAM-Based Architecture. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2021, 40, 2455-2466. | 2.7 | 3 |
| 6 | A Partial Page Cache Strategy for NVRAM-Based Storage Devices. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 373-386. | 2.7 | 1 |
| 7 | How to Cut Out Expired Data with Nearly Zero Overhead for Solid-State Drives. , 2020, , . | | 1 |
| 8 | NS-FTL: Alleviating the Uneven Bit-Level Wearing of NVRAM-based FTL via NAND-SPIN. , 2020, , . | | 1 |
| 9 | B*-Sort: Enabling Write-Once Sorting for Nonvolatile Memory. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 4549-4562. | 2.7 | 6 |
| 10 | Enabling a B<sup>+</sup>-tree-based Data Management Scheme for Key-value Store over SMR-based SSHD. , 2020, , . | | 4 |
| 11 | How to cultivate a green decision tree without loss of accuracy?. , 2020, , . | | 2 |
| 12 | Rethinking Last-level-cache Write-back Strategy for MLC STT-RAM Main Memory with Asymmetric Write Energy. , 2019, , . | | 5 |
| 13 | Replanting Your Forest: NVM-friendly Bagging Strategy for Random Forest. , 2019, , . | | 9 |
| 14 | Co-Optimizing Storage Space Utilization and Performance for Key-Value Solid State Drives. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2019, 38, 29-42. | 2.7 | 6 |
| 15 | A new sequential-write-constrained cache management to mitigate write amplification for SMR drives. , 2019, , . | | 6 |
| 16 | Enabling Sequential-write-constrained B <sup>+</sup> -tree Index Scheme to Upgrade Shingled Magnetic Recording Storage Performance. Transactions on Embedded Computing Systems, 2019, 18, 1-20. | 2.9 | 4 |
| 17 | UnistorFS. ACM Transactions on Storage, 2018, 14, 1-22. | 2.1 | 7 |
| 18 | wrJFS: A Write-Reduction Journaling File System for Byte-addressable NVRAM. IEEE Transactions on Computers, 2018, 67, 1023-1038. | 3.4 | 12 |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 19 | Enhancing the Energy Efficiency of Journaling File System via Exploiting Multi-Write Modes on MLC NVRAM. , 2018, , . | | 4 |
| 20 | Enabling Union Page Cache to Boost File Access Performance of NVRAM-Based Storage Device. , 2018, , . | | 1 |
| 21 | Enhancing Flash Memory Reliability by Jointly Considering Write-back Pattern and Block Endurance. ACM Transactions on Design Automation of Electronic Systems, 2018, 23, 1-24. | 2.6 | 3 |
| 22 | Enabling union page cache to boost file access performance of NVRAM-based storage device. , 2018, , . | | 2 |
| 23 | Minimizing write amplification to enhance lifetime of large-page flash-memory storage devices. , 2018, , . | | 2 |
| 24 | Performance optimization of heterogeneous cloud storage with bandwidth & capacity considerations. , 2018, , . | | 1 |
| 25 | Space-Efficient Index Scheme for PCM-Based Multiversion Databases in Cyber-Physical Systems. Transactions on Embedded Computing Systems, 2017, 16, 1-26. | 2.9 | 4 |
| 26 | KVFTL: Optimization of storage space utilization for key-value-specific flash storage devices. , 2017, , . | | 6 |
| 27 | On Space Utilization Enhancement of File Systems for Embedded Storage Systems. Transactions on Embedded Computing Systems, 2017, 16, 1-28. | 2.9 | 2 |
| 28 | VirtualGC. , 2017, , . | | 9 |
| 29 | Analysis and improvement of the 3-star algorithm for the STP-MSP problem in Wireless Sensor Networks. , 2017, , . | | 3 |
| 30 | Enhancing Usability for the Wireless Charging Vehicle Simulator. , 2017, , . | | 0 |
| 31 | Utilizing Multi-Level Data Fault Tolerance to Converse Energy on Software-Defined Storage. , 2017, , . | | 1 |
| 32 | Enabling Multi-Level Data Fault Tolerance on Software-Defined Storage System. , 2017, , . | | 1 |
| 33 | Enabling Write-Reduction Strategy for Journaling File Systems over Byte-addressable NVRAM. , 2017, , . | | 19 |
| 34 | Mitigating the Write Amplification Problem of Write-Optimized File Systems on Flash Storage. , 2017, , . | | 0 |
| 35 | An update-overhead-aware caching policy for write-optimized file systems on SMR disks. , 2017, , . | | 0 |
| 36 | Enabling High-Resolution Video Support for the Next-Generation Internet-Connected Display. , 2017, , . | | 1 |

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| 37 | xB+-Tree: Access-Pattern-Aware Cache-Line-Based Tree for Non-volatile Main Memory Architecture. , 2017, , . | | 1 |
| 38 | A pattern-aware write strategy to enhance the reliability of flash-memory storage systems. , 2017, , . | | 1 |
| 39 | BASE: an assistant tool to precisely simulate energy consumption and reliability of energy-efficient storage systems. Software - Practice and Experience, 2016, 46, 581-599. | 3.6 | 2 |
| 40 | Rescuing moribund NVM-based sensor nodes by an energy-efficient WCV routing algorithm. , 2016, , . | | 0 |
| 41 | Exploiting the locality of virtual-machine images to boost the performance of a cloud platform. , 2016, , . | | 0 |
| 42 | Improving the 3-star approximation algorithm for relay node placement in wireless sensor network. , 2016, , . | | 0 |
| 43 | Developing a user-friendly sensor network simulator to imitate wireless charging vehicle behaviors. , 2016, , . | | 2 |
| 44 | Extending sensor network lifetime via wireless charging vehicle with an efficient routing protocol. , 2016, , . | | 4 |
| 45 | Enabling sub-blocks erase management to boost the performance of 3D NAND flash memory. , 2016, , . | | 20 |
| 46 | Multi-Grained Block Management to Enhance the Space Utilization of File Systems on PCM Storages. IEEE Transactions on Computers, 2016, 65, 1831-1845. | 3.4 | 3 |
| 47 | Efficient Warranty-Aware Wear Leveling for Embedded Systems With PCM Main Memory. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2016, 24, 2535-2547. | 3.1 | 13 |
| 48 | CloudBook: Implementing an E-book reader on a cloud platform by an optimized vector graphic library. Computer Standards and Interfaces, 2016, 43, 68-78. | 5.4 | 3 |
| 49 | An effective monitoring framework and user interface design. Software - Practice and Experience, 2015, 45, 549-570. | 3.6 | 3 |
| 50 | A QoS-Aware Data Reconstruction Strategy for a Data Fault-Tolerant Storage System. , 2015, , . | | 1 |
| 51 | Design a Hash-Based Control Mechanism in vSwitch for Software-Defined Networking Environment. , 2015, , . | | 9 |
| 52 | Inspecting the performance of packet schedulers over a large-scale OpenFlow-based network. , 2015, , . | | 0 |
| 53 | Prolong Lifetime of Dynamic Sensor Network by an Intelligent Wireless Charging Vehicle. , 2015, , . | | 3 |
| 54 | An Energy-Efficient and Reliable Storage Mechanism for Data-Intensive Academic Archive Systems. ACM Transactions on Storage, 2015, 11, 1-21. | 2.1 | 19 |

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|---|---------|----|-----------|
| 55 | A study of suitable fault tolerance frameworks for an energy-efficient storage system. , 2015, , . | | 1 |
| 56 | An Efficient Routing Algorithm to Optimize the Lifetime of Sensor Network Using Wireless Charging Vehicle. , 2014, , . | | 4 |
| 57 | Optimizing space utilization of file systems on PCM-based storage devices. , 2014, , . | | 3 |
| 58 | Dynamic tail packing to optimize space utilization of file systems in embedded computing systems. , 2014, , . | | 0 |
| 59 | An enhanced user interface design with Auto-Adjusting Icon Placement on foldable devices. , 2014, , . | | 1 |
| 60 | A Digital Archive Data Preservation Management System Using IRODS Architecture. , 2014, , . | | 1 |
| 61 | A High Efficient Disk Scheduling Framework with QoS Mechanism in Xen-Based Cloud Platforms. , 2014, , . | | 1 |
| 62 | LaSA: A locality-aware scheduling algorithm for Hadoop-MapReduce resource assignment. , 2013, , . | | 22 |
| 63 | A IoT Application of Safe Building in IPv6 Network Environment. , 2013, , . | | 2 |
| 64 | Integrating deadline-modification SCAN algorithm to Xen-based cloud platform. , 2013, , . | | 2 |
| 65 | BASE: Benchmark analysis software for energy-efficient solutions in large-scale storage systems. , 2013, , . | | 2 |
| 66 | ENERGY EFFICIENT GEOGRAPHIC ROUTING ALGORITHMS IN WIRELESS SENSOR NETWORK. Journal of Interconnection Networks, 2013, 14, 1350001. | 1.0 | 5 |
| 67 | EEGRA: Energy Efficient Geographic Routing Algorithms for Wireless Sensor Network. , 2012, , . | | 2 |
| 68 | CacheRAID: An Efficient Adaptive Write Cache Policy to Conserve RAID Disk Array Energy. , 2012, , . | | 12 |
| 69 | EDZL scheduling for large-scale cyber service on real-time cloud. , 2011, , . | | 3 |
| 70 | Efficient Parallel Algorithm for Nonlinear Dimensionality Reduction on GPU. , 2010, , . | | 6 |
| 71 | How to Enable Index Scheme for Reducing the Writing Cost of DNA Storage on Insertion and Deletion. Transactions on Embedded Computing Systems, 0, , . | 2.9 | 0 |