# HUAMING WU (IEEE Senior Member)

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World's Top 2% Scientists by Stanford University, in both Career-Long and Single Year Categories, 2020-2023

# **Research Interests**



Vehicular Communications, Mobile and Cloud Computing, Internet of Things, Edge intelligence, Complex Networks, DNA Storage

## Education

Dr. rer. nat. (PhD) at Freie Universität Berlin, Germany. Doctoral dissertation:
Analysis of Offloading Decision Making in Mobile Cloud Computing. Grade Summa
cum laude (with highest honors)
Master of Science (Msc) at Harbin Institute of Technology, China, GPA: 89.07/100,
Rank: 27/164
Bachelor at Harbin Institute of Technology, China, GPA: 90.09/100, Rank: 2/98
Professor, Center for Applied Mathematics, Tianjin University, China

06/2023-now	Professor, Center for Applied Mathematics, Tianjin University, China
01/2019.01-02/2019	Visiting Scholar, University of Melbourne, Australia, Supervisor: Rajkumar Buyya
06/2018-06/2023	Assoc. Professor, Center for Applied Mathematics, Tianjin University, China
05/2016-06/2018	Lecturer, Center for Applied Mathematics, Tianjin University, China
06/2010-08/2010	Internship, Gwangju Institute of Science and Technology, Korea

### Academic Activity

- Associate Editor, IEEE Transactions on Intelligent Transportation System (TITS), since 2022
- Associate Editor, IEEE Transactions on Network and Service Management (TNSM), since 2023
- Associate Editor, IEEE Systems Journal (ISJ), since 2023
- Subject Area Editor, Journal of Systems Architecture (JSA), since 2023
- Editorial Board, Vehicular Communications, since 2023 (IF=6.7)
- Associate Editor, Computer Communications (COMCOM), since 2023
- Associate Editor, IEEE Open Journal of the Communications Society (IEEE OJ-COM), 2023 2026 (IF=7.9)
- Lead Guest Editor, IEEE Transactions on Consumer Electronics (IF=4.3), Special Issue on Advances in Artificial intelligence (AI) enabled Vehicular Edge Computing (VEC) for consumer electronics, 2024
- Lead Guest Editor, Software: Practice and Experience, Special Issue on software-Driven Edge Computing and Artificial Intelligence of Things, 2023-2024
- Guest Editor, IEEE Journal of Biomedical and Health Informatics, Special Issue on Orchestrating Biomedical Breakthroughs through the Fusion of NLP Techniques and GPT Transformers, 2023-2024
- Distinguished Reviewer Board, ACM Transactions on the Web (TWEB), since 2022
- Founder, IEEE SIG on Metaverse, 2022.9
- Academic Editor, Wireless Communications and Mobile Computing, since 2020
- Technical Committee (TC), Internet of Things, Internet of Everywhere and Edge Computing (IOT), IEEE Consumer Technology Society (CTSoc), since 2022
- Junior Editorial Board, Journal of Surveillance, Security and Safety (JSSS), since 2023
- Editorial Board, Topic Editor Electronics, since 2021
- Editor Board Member, Journal of Smart Environments and Green Computing (JSEGC), 2022-2024
- Guest Editor, Journal of Systems Architecture, Special Issue on Resource Management for Edge Intelligence, 2020-2021
- Lead Guest Editor, Journal of Cloud Computing, Special Issue on Edge-cloud computing cooperation for task offloading in internet-of-things, 2020-2021
- Lead Guest Editor, Security and Communication Networks, Special Issue on Security Threats to Artificial Intelligence-Driven Wireless Communication Systems, 2019-2021

- Lead Guest Editor, Wireless Communications and Mobile Computing, Special issue on Deep Learning Driven Wireless Communications and Mobile Computing, 2018-2019
- Lead Guest Editor, Computer Modeling in Engineering & Sciences, Special Issue on Advances in Edge Intelligence for Internet of Things, 2022-2023
- Guest Associate Editor & Review Editor, Frontiers in High Performance Computing, 2022-
- **Program Chair**, The 9th IEEE International Conference on Smart Data (SmartData 2023), December 15-18, 2023, Hainan Ocean Flower Island, China.
- **Program Chair**, The 22nd IEEE International Conference on Scalable Computing and Communications (ScalCom 2022), Haikou, Hainan, China.
- General Chair, Workshop on Computing and Scheduling in Wireless Power and Communication Networks (CSWPCN 2020), in conjunction with ICDCS 2020, July 8-10, 2020, Singapore.
- General Chair, The First Workshop on Intelligent Offloading for Internet of Things (IOIoT 2020), in conjunction with ICCCN 2020, August 3-6, 2020, Honolulu, Hawaii, USA
- Artifact Evaluation Committee, ACM International Conference on Performance Engineering (ICPE 2022), Beijing, China.
- Publicity Chair, ACM International Conference on Performance Engineering (ICPE 2021), Rennes, France.
- WIP/Vision Track Chair & PC, ACM International Conference on Performance Engineering (ICPE), 2019 in Mumbai, India.
- Publicity Chair & PC, ACM International Conference on Performance Engineering (ICPE), 2018 in Berlin.
- Track Chair, IEEE International Conference on Consumer Electronics (ICCE 2024), 6-8 Jan, 2024, Las Vegas, USA.
- Workshop Chair & PC, 30th IEEE International Symposium on Software Reliability Engineering (ISSRE 2019), Berlin, Germany.
- Session Chair, IEEE/ACM International Symposium on Quality of Service (IWQoS 2021), 25–28 June 2021.
- Committee Chair, Asia Pacific Society for Computing and Information Technology (APSCIT).
- Student Forum Chair & PC, Conference on Quantitative Evaluation of SysTems (QEST) 2017 in Berlin.
- **TPC**, The 34th edition of the Workshop on Network and Operating System Support for Digital Audio and Video (ACM NOSSDAV 2024), April, 2024 Bari, Italy.
- **TPC**, The 33rd edition of the Workshop on Network and Operating System Support for Digital Audio and Video (ACM NOSSDAV 2023), June 7, 2023, Vancouver, BC, Canada.
- TPC, Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI-21), February 2-9, 2021.
- TPC, 33rd IEEE International Symposium on Software Reliability Engineering (ISSRE 2023), Oct. 9-12, 2023, Florence.
- TPC, 33rd IEEE International Symposium on Software Reliability Engineering (ISSRE 2022), Oct.24-27, 2022, Charlotte.
- TPC, 32nd IEEE International Symposium on Software Reliability Engineering (ISSRE 2021), Wuhan, China.
- TPC, 31st IEEE International Symposium on Software Reliability Engineering (ISSRE 2020), Coimbra, Portugal.
- TPC, 2024 IEEE International Conference on Web Services (ICWS 2024), Shenzhen, China, July 7-13, 2024.
- TPC, 2023 IEEE International Conference on Web Services (ICWS 2023), Chicago, IL, United States, July 2-8, 2023.
- TPC, 2024 IEEE International Conference on Communications (ICC 2024), 9–13 June 2024, Denver, CO, USA.
- TPC, 2023 IEEE International Conference on Communications (ICC 2023), 28 May-01 June 2023, Rome, Italy
- TPC, 2022 IEEE International Conference on Communications (ICC 2022), 16–20 May 2022, Seoul, South Korea.
- TPC, 2023 IEEE Global Communications Conference (GLOBECOM 2023), 4-8 Dec. 2023, Kuala Lumpur, Malaysia.
- TPC, 2022 IEEE Global Communications Conference (GLOBECOM 2022), 4 8 Dec. 2022, Rio de Janeiro-RJ Brazil.
- TPC, 2021 IEEE Global Communications Conference (GLOBECOM 2021), 7-11 Dec. 2021, Madrid, Spain.
- TPC, IEEE Wireless Communications and Networking Conference (WCNC 2023), Mar.26-29, 2023, Glasgow, Scotland.
- TPC, IEEE Wireless Communications and Networking Conference (WCNC 2022), April 10-13, 2022, Austin, TX, USA.
- TPC, IEEE Wireless Communications and Networking Conference (WCNC 2021), Nanjing, China.
- TPC, 20th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2023), Portsmouth, UK
- TPC, 19th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2022), Haikou, China.
- TPC, International Conference on Metaverse Computing, Networking and Applications (MetaCom 2023)), Kyoto, Japan
- **TPC**, 3rd International Workshop on Intelligent Cloud Computing and Networking (ICCN 2021) in conjunction with IEEE INFOCOM 2021, Virtual Conference.
- TPC, 2nd International Workshop on Intelligent Cloud Computing and Networking (ICCN 2020) in conjunction with IEEE INFOCOM 2020, Beijing, China.
- TPC, First International Workshop on Intelligent Cloud Computing and Networking (ICCN 2019) in conjunction with IEEE INFOCOM 2019 in Paris, France.
- TPC, IEEE International Conference on Edge Computing (IEEE EDGE 2023), July 2-8 2022, CHICAGO, ILLINOIS USA
- TPC, IEEE International Conference on Edge Computing (IEEE EDGE 2022), July 10-16 2022, Barcelona, Spain
- TPC, IEEE International Conference on Edge Computing (IEEE EDGE 2021), Dec. 18-20 2021, Guangzhou, China
- TPC, 2023 IEEE The 23rd International Conference on Communication Technology (ICCT 2023) in Wuxi, China.

- TPC, International Conference of Modern Systems Engineering Solutions (MODERN SYSTEMS 2022), July 24, 2022 to July 28, 2022 Nice, Saint-Laurent-du-Var, France.
- TPC, The Nineteenth International Conference on Networking and Services (ICNS 2023), Mar. 13-17, Barcelona, Spain
- TPC, Computer Vision Conference (CVC) 2019 in Las Vegas, Nevada, United States.
- TPC, Intelligent Systems Conference (IntelliSys) 2019, London, United Kingdom.
- TPC, Computing Conference (Computing 2020), London, United Kingdom.
- TPC, Future of Information and Communication Conference (FICC 2023), March 2-3, 2022 in San Francisco.
- TPC, Future of Information and Communication Conference (FICC 2022), March 3-4, 2022 in San Francisco.
- TPC, Future of Information and Communication Conference (FICC 2021), 29-30 April 2021, Vancouver, Canada.
- TPC, Future of Information and Communication Conference (FICC 2020), San Francisco.
- TPC, Future of Information and Communication Conference (FICC) 2019, San Francisco.
- PC, Conference on Quantitative Evaluation of SysTems (QEST) 2018 in Beijing.
- PC, 15th European Performance Engineering Workshop (EPEW) 2018 in Paris.
- PC, 14th European Performance Engineering Workshop (EPEW) 2017 in Berlin.
- TPC, The Third International Symposium on Advanced Security on Software and Systems (ASSS 2023), July 10-14 2023, Melbourne, Australia
- TPC, BLOCKCHAIN & CRYPTOCURRENCY CONGRESS (B2C' 2023) (B2C' 2023), 18-20 OCTOBER 2023, CORFU, GREECE
- TPC, 1st International Workshop on Intelligent Cloud Computing and Networking (Big Data Pipelines 2019) in conjunction with IEEE HiPC 2019, Hyderabad, India.
- PC, 17th IEEE International Symposium on Parallel and Distributed Processing with Applications (ISPA 2019), Xiamen, China.
- TPC, 5th International Conference of Pioneering Computer Scientists, Engineers and Educators (ICYCSEE 2019), Guilin, China.
- TPC, 3rd Annual International Conference on Data Science and Business Analytics (ICDSBA 2019), Istanbul, Turkey.

### **Journal Reviews**

IEEE Trans. Pattern Analysis and Machine Intelligence (TPAMI) IEEE Communications Surveys and Tutorials (COMST) IEEE Trans. Systems, Man and Cybernetics: Systems (TSMC) IEEE Journal on Selected Areas in Communications (JSAC) IEEE Trans. Parallel and Distributed Systems (TPDS) IEEE Trans. Knowledge and Data Engineering (TKDE) IEEE Trans. Circuits and Systems for Video Technology (TCSVT) IEEE Trans. Mobile Computing (TMC) IEEE Trans. Wireless Communications (TWC) IEEE Trans. Services Computing (TSC) IEEE Trans. Automation Science and Engineering (TASE) IEEE Trans. Information Forensics and Security (TIFS) IEEE Trans. Emerging Topics in Computational Intelligence (TETCI) IEEE Trans. Cognitive Communications and Networking (TCCN) IEEE Trans. Green Communications and Networking (TGCN) IEEE Trans. Multi-Scale Computing Systems (TMSCS) IEEE Trans. Network and Service Management (TNSM) IEEE Trans. Consumer Electronics (TCE) IEEE Trans. Neural Networks and Learning Systems (TNNLS) ACM Trans. Sensor Networks (TOSN)

IEEE Trans. Communications (TCOM) IEEE Trans. Cybernetics (TCYB) IEEE/ACM Trans. Networking (TON) IEEE Transactions on Signal Processing (TSP) IEEE Trans. Intelligent Transportation Systems (TITS) IEEE Trans. Emerging Topics in Computing (TETC) IEEE Trans. Industrial Informatics (TII) IEEE Transactions on Big Data (TBD), IEEE Transactions on Artificial Intelligence (TAI) IEEE Trans. Computational Social Systems (TCSS) IEEE Internet of Things Journal (IoT-J) IEEE Trans. Vehicular Technology (TVT) IEEE Trans. Multimedia (TMM) IEEE Trans. Cloud Computing (TCC) IEEE Trans. Image Processing (TIP) IEEE Trans. Sustainable Computing (T-SUSC) IEEE Trans. Network Science and Engineering (TNSE) IEEE Trans. Transportation Electrification (TTE) ACM Trans. Sensor Networks (TOSN) ACM Trans. Internet Technology (TOIT)

### **Honors & Awards**

- "Top Peer Reviewer 2019 in Computer Science", Publons
- "Top Peer Reviewer 2019 in Cross-Field", Publons
- "Exemplary Reviewer", IEEE Transaction on Communications, 2022
- "Excellent Reviewer", IEEE Transactions on Network Science & Engineering, 2022
- "Outstanding Reviewer Award": Future Generation Computer Systems
- "Outstanding Doctoral Dissertation Award (summa cum laude)", Freie Universität Berlin, Germany, 2015
- "National Fund for Scientific and Technological Development (FONDECYT)", external reviewer, 2020
- "Outstanding Invited Speaker", SCML 2019
- "Outstanding Invited Speaker": CITR 2018

- "Innovative Talent Promotion Program of Tianjin", Tianjin, 2018
- Alibaba Living Water Scholar 2018

## Grants

- Intelligent Decisions for Edge Offloading in the Internet of Things Environment, sponsored by National Natural Science Foundation of China. 2021/01-2024/12 (PI)
- Delay-Constrained Hybrid Task Offloading in Joint Cloud and Fog Computing Environments, sponsored by National Natural Science Foundation of China. 2019/01-2022/12. (PI)
- Multi-Objective Decision Making for Task Offloading in Mobile Cloud Computing, sponsored by *Natural Science Foundation of Tianjin*. 2018/04-2021/3. (PI)
- App cooperation in client-cloud system, sponsored by *Huawei Innovation Research Program (HIRP) grant*, 2017/10-2018/9. (PI)
- Blockchain-based security task offloading in IoT environments, sponsored by CCF-Tencent Open Research Fund, 2020-2021 (PI)
- Hot spots and development trends of new generation of information technology, sponsored by *Alibaba Living Water*, 2018-2019. (PI)
- Unstructured data simulation generation for AI training, sponsored by *Huawei Innovation Research Program (HIRP)* grant, 2018-2019. (PI)
- Efficient learning using generative adversarial network in wireless environment, sponsored by *Huawei Innovation Research Program (HIRP) grant*, 2018-2019. (PI)
- Key Technologies of Community Risk Monitoring and Prevention, sponsored by National Key Research and Development Plan, 2018/07-2021/06. (CO-PI)
- Combination methods in DNA storage, sponsored by National Key Research and Development Plan, No. 2020YFA0712102, 2020/12-2025/11. (CO-PI)
- Big Data Analysis and Computing, sponsored by *Tianjin Science and Technology Planning Project*, 2022/10-2024/09. (CO-PI)
- Touchable anatomy teaching virtual reality system, sponsored by *Major Science and Technology Project of Tianjin*, 2018-2021. (CO-PI)

#### Selected Journal Publications (\*corresponding author)

- Huaming Wu\*, William J. Knottenbelt, Katinka Wolter. An Efficient Application Partitioning Algorithm in Mobile Environments. *IEEE Transactions on Parallel and Distributed Systems*, vol. 30, no. 7, pp. 1464 - 1480, 2019.
- [2] Muhammed Tawfiqul Islam, Huaming Wu, Shanika Karunasekera, Rajkumar Buyya. SLA-based Scheduling of Spark Jobs in Hybrid-Cloud Environment. *IEEE Transactions on Computers*, vol. 71, no. 5, pp. 1117-1132, 1 May 2022.
- [3] Huaming Wu\* and Katinka Wolter. Stochastic Analysis of Delayed Mobile Offloading in Heterogeneous Networks. *IEEE Transactions on Mobile Computing*, vol. 17, no. 2, pp. 461-474, 2018.
- [4] Junhui Du, Huaming Wu\*, Minxian Xu, Rajkumar Buyya. Computation Energy Efficiency Maximization for NOMA-Based and Wireless-Powered Mobile Edge Computing with Backscatter Communication. IEEE Transactions on Mobile Computing, 2023.
- [5] Huaming Wu\*, Yi Sun, Katinka Wolter. Energy-Efficient Decision Making for Mobile Cloud Offloading. *IEEE Transactions on Cloud Computing*, vol. 8, no. 2, pp. 570-584, 2020. ESI Highly Cited Paper
- [6] Mohammad Goudarzi, Huaming Wu, Marimuthu Palaniswami, Rajkumar Buyya. An Application Placement Technique for Concurrent IoT Applications in Edge and Fog Computing Environments. *IEEE Transactions on Mobile Computing*, vol. 20, no. 4, pp. 1298-1311, 2021. ESI Highly Cited Paper & ESI Hot Paper, ranked in the list of 50 most popular articles
- [7] Min Xue, Huaming Wu\*, Guang Peng and Katinka Wolter. DDPQN: An Efficient DNN Offloading Strategy in Local-Edge-Cloud Collaborative Environments. *IEEE Transactions on Services Computing*, vol. 15, no. 2, pp. 640-655, 1 March-April 2022. ranked in the list of 50 most popular articles
- [8] Pengfei Jiao, Tianpeng Li, Yingjie Xie, Yinghui Wang, Wenjun Wang, Dongxiao He, Huaming Wu. Generative Evolutionary Anomaly Detection in Dynamic Networks. *IEEE Transactions on Knowledge and Data Engineering*, vol. 35, no. 12, pp. 12234-12248, 1 Dec. 2023.
- [9] Huaming Wu\*, Junqi Chen, Tu N. Nguyen, Huijun Tang. Lyapunov-Guided Delay-Aware Energy Efficient Offloading in IIoT-MEC Systems. *IEEE Transactions on Industrial Informatics*, vol. 19, no. 2, pp. 2117-2128, Feb. 2023. ESI Highly Cited Paper
- [10] Junqi Chen, Huaming Wu\*, Ruidong Li, Pengfei Jiao. GPOOA: Green Parallel Online Offloading for DSCI-Type Tasks in IoT-Edge Systems. *IEEE Transactions on Industrial Informatics*, vol. 18, no. 11, pp. 7955 - 7966, November 2022.
- [11] Pengfei Jiao, Qiang Tian, Wang Zhang, Xuan Guo, Di Jin, Huaming Wu\*. Role Discovery-Guided Network Embedding based on Autoencoder and Attention Mechanism. *IEEE Transactions on Cybernetics*, vol. 53, no. 1, pp. 365-378, Jan. 2023.
- [12] Tianpeng Li, Wenjun Wang, Pengfei Jiao, Yinghui Wang, Ruomeng Ding, Huaming Wu, Lin Pan, Di Jin. Exploring Temporal Community Structure via Network Embedding. *IEEE Transactions on Cybernetics*, vol. 53, no. 11, pp. 7021-7033, Nov. 2023

- [13] Guanjin Qu, Naichuan Cui, Huaming Wu\*, Ruidong Li, Yuemin Ding. ChainFL: A Simulation Platform for Joint Federated Learning and Blockchain in Edge/Cloud Computing Environments. *IEEE Transactions on Industrial Informatics*, vol. 18, no. 5, pp. 3572 - 3581, May 2022.
- [14] Xiaolong Xu, Bowen Shen, Xiaochun Yin, Mohammad Khosravi, Huaming Wu, Lianyong Qi, Shaohua Wan. Edge Server Quantification and Placement for Offloading Social Media Services in Industrial Cognitive IoV. *IEEE Transactions on Industrial Informatics*, vol. 17, no. 4, pp. 2910-2918, April 2021. ESI Highly Cited Paper & ESI Hot Paper
- [15] Li Liu, Yuemin Ding\*, Xiaohui Li, Huaming Wu, Lantao Xing. A Container-driven Service Architecture to Minimize The Upgrading Requirements of User-Side Smart Meters in Distribution Grids. *IEEE Transactions on Industrial Informatics*, vol. 18, no. 1, pp. 719-728, Jan. 2022.
- [16] Renzhi Lu, Zhenyu Jiang, Huaming Wu, Yuemin Ding, Dong Wang, Hai-Tao Zhang. Reward Shaping-based Actor-Critic Deep Reinforcement Learning for Residential Energy Management. *IEEE Transactions on Industrial Informatics*, vol. 19, no. 3, pp. 2662-2673, March 2023.
- [17] Minxian Xu, Chenghao Song, Huaming Wu, Sukhpal Singh Gill, Kejiang Ye\*, Chengzhong Xu. esDNN: Deep Neural Network based Multivariate Workload Prediction in Cloud Computing Environments. ACM Transactions on Internet Technology, 22, 3, Article 75 (August 2022), 24 pages.
- [18] Renzhi Lu, Ruichang Bai, Ruidong Li, Lijun Zhu, Mingyang Sun, Feng Xiao, Dong Wang, Huaming Wu\*, Yuemin Ding\*. A Novel Sequence-to-Sequence-Based Deep Learning Model for Multistep Load Forecasting. *IEEE Transactions on Neural Networks and Learning Systems*, accept, 2023
- [19] Pengfei Jiao, Tianpeng Li, Huaming Wu, Yingjie Xie, Chengdong Wang, Dongxiao He, Wenjun Wang. HB-DSBM: Modeling the Dynamic Complex Networks from Community Level to Node Level. *IEEE Transactions on Neural Networks and Learning Systems*, vol. 34, no. 11, pp. 8310-8323, Nov. 2023
- [20] Pengfei Jiao, Xuan Guo, Xin Jing, Dongxiao He, Huaming Wu, Shirui Pan, Maoguo Gong, Wenjun Wang. Temporal Network Embedding for Link Prediction via VAE joint Attention Mechanism. *IEEE Transactions on Neural Networks and Learning Systems*, vol. 33, no. 12, pp. 7400-7413, Dec. 2022
- [21] Yinghui Wang, Pengfei Jiao, Qiyao Peng, Lin Pan, Huaming Wu, Wenjun Wang. Alleviate the Impact of Heterogeneity in Network Alignment from Community View. *IEEE Transactions on Neural Networks and Learning Systems*, revision, 2023
- [22] Chaogang Tang, Huaming Wu\*, Ruidong Li, Chunsheng Zhu and Joel J. P. C. Rodrigues. A Systematic Exploration of Edge Computing-Enabled Metaverse. *IEEE Network Magazine*, accept, 2023
- [23] Guanjin Qu, Huaming Wu\*, Ruidong Li, Pengfei Jiao. DMRO: Deep Meta Reinforcement Learning-based Task Offloading for Edge-Cloud Computing. *IEEE Transactions on Network and Service Management*, vol. 18, no. 3, pp. 3448-3459, 2021. ranked in the list of 50 most popular articles
- [24] Huijun Tang, Huaming Wu\*, Yubin Zhao, Ruidong Li. Joint Computation Offloading and Resource Allocation for Task Overflowed in Mobile Edge Computing. *IEEE Transactions on Network and Service Management*, vol. 19, no. 2, pp. 1539 -1553, 2022.
- [25] Min Xue, Huaming Wu\*, Ruidong Li, Minxian Xu and Pengfei Jiao. EosDNN: An Efficient Offloading Scheme for DNN Inference Acceleration in Cloud-Edge Collaborative Environments. *IEEE Transactions on Green Communications and Networking*, vol. 6, no. 1, pp. 248-264, March 2022.
- [26] Dong Wang, Kun Shang, Huaming Wu, Ce Wang. Decoupled R-CNN: Sensitivity-Specific Detector for Higher Accurate Localization. *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 32, no. 9, pp. 6324-6336, Sept. 2022
- [27] Huijun Tang, Huaming Wu\*, Guanjin Qu, Ruidong Li. Double Deep Q-Network based Dynamic Framing Offloading in Vehicular Edge Computing. *IEEE Transactions on Network Science and Engineering*, vol. 10, no. 3, pp. 1297 - 1310, 2023. ESI Highly Cited Paper
- [28] Xianghui Li, Zhuhua Hu\*, Chong Shen, Huaming Wu\*, Yaochi Zhao. TFF\_aDCNN: A Pre-trained Base Model for Intelligent Wideband Spectrum Sensing. *IEEE Transactions on Vehicular Technology*, vol. 72, no. 10, pp. 12912-12926, Oct. 2023
- [29] Songxin Lei, Xinyao Guo, Junyi Li, Yixiao Wang, Yu Zhang, Lu Zheng, Huaming Wu\*. Dissatisfaction Feedback and Stackelberg Game-based Task Offloading Mechanism for Parked Vehicle Edge Computing. *IEEE Transactions on Vehicular Technology*, 2023
- [30] Mengzhou Gao, Ruili Lu, Pengfei Jiao, Huaming Wu\*, Yinghui Wang, and Zhidong Zhao. Inductive Link Prediction via Interactive Learning Across Relations in Multiplex Networks. *IEEE Transactions on Computational Social Systems*, 2022
- [31] Wei Yu, Wenkai Wang\*, Guangquan Xu, Huaming Wu\*, Hongyan Li, Jun Wang and Xiaoming Li. MRFS: Mining Rating Fraud Subgraph in Bipartite Graph for Users and Products. *IEEE Transactions on Computational Social Systems*, 2022
- [32] Yongting Zhang, Yonggang Gao, Huanhuan Wang, Huaming Wu\*, Youbing Xia, Xiang Wu\*. A secure high-order gene interaction detection algorithm based on deep neural network. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 2022.
- [33] Zihui Yan, Cong Liang, Huaming Wu\*. A Segmented-edit error-Correcting Code with Re-synchronization Function for DNA-based Storage Systems. *IEEE Transactions on Emerging Topics in Computing*, vol. 11, no. 3, pp. 605-618, 1 July-Sept. 2023.
- [34] Junhui Du, Minxian Xu, Sukhpal Singh Gill, Huaming Wu\*. Computation Energy Efficiency Maximization for Intelligent

Reflective Surface-Aided Wireless Powered Mobile Edge Computing. *IEEE Transactions on Sustainable Computing*, 2023 ranked in the list of 50 most popular articles

- [35] Muhammed Golec, Sukhpal Singh Gill, Felix Cuadrado, Ajith Kumar Parlikad, Minxian Xu, Huaming Wu\*, Steve Uhlig. ATOM: AI-powered Sustainable Resource Management for Serverless Edge Computing Environments. *IEEE Transactions on Sustainable Computing*, 2023
- [36] Huan Liu, Pengfei Jiao\*, Xuan Guo, Huaming Wu\*, Mengzhou Gao, and Jilin Zhang. HGN2T: A Simple but Plug-and-Play Framework Extending HGNNs on Heterogeneous Temporal Graphs. *IEEE Transactions on Big Data*, 2023
- [37] Lei Wang, Deke Guo, Huaming Wu\*, Keqiu Li, Wei Yu\*. TC-GCN: Triple Cross-Attention and Graph Convolutional Network for Traffic Forecasting. *Information Fusion*, Volume 105, May 2024, 102229. (IF=18.6)
- [38] Chaogang Tang, Ge Yan, Huaming Wu\*, Chunsheng Zhu. Computation Offloading and Resource Allocation in Failure-Aware Vehicular Edge Computing. *IEEE Transactions on Consumer Electronics*, 2023
- [39] Jitendra Kumar Samriya, Surendra Kumar, Mohit Kumar, Minxian Xu, Huaming Wu\*, Sukhpal Singh Gill. Blockchain and Reinforcement Neural Network for Trusted Cloud-enabled IoT Network. *IEEE Transactions on Consumer Electronics*, 2023
- [40] Huaming Wu\*, Katinka Wolter, Pengfei Jiao, Yingjun Deng, Yubin Zhao, Minxian Xu. EEDTO: An Energy-Efficient Dynamic Task Offloading Algorithm for Blockchain-Enabled IoT-Edge-Cloud Orchestrated Computing, *IEEE Internet of Things Journal*, vol. 8, no. 4, pp. 2163-2176, 2021. ESI Highly Cited Paperfveh
- [41] Huaming Wu\*, Ziru Zhang, Chang Guan, Katinka Wolter, Minxian Xu. Collaborate Edge and Cloud Computing with Distributed Deep Learning for Smart City Internet of Things. *IEEE Internet of Things Journal*, vol. 7, no. 9, pp. 8099-8110, 2020.
- [42] Ziru Zhang, Nianfu Wang, Huaming Wu\*, Chaogang Tang, and Ruidong Li. MR-DRO: A Fast and Efficient Task Offloading Algorithm in Heterogeneous Edge/Cloud Computing Environments. *IEEE Internet of Things Journal*, vol. 10, no. 4, pp. 3165-3178, 15 Feb.15, 2023. ESI Highly Cited Paper
- [43] Guang Peng\*, Huaming Wu\*, Han Wu, Katinka Wolter. Constrained Multi-objective Optimization for IoT-enabled Computation Offloading in Collaborative Edge and Cloud Computing, *IEEE Internet of Things Journal*, vol. 8, no. 17, pp. 13723-13736, 2021.
- [44] Mohammadreza Razian, Mohammad Fathian, Huaming Wu, Ahmad Akbari, Rajkumar Buyya. SAIoT: Scalable Anomaly-aware Services Composition in CloudIoT Environments, *IEEE Internet of Things Journal*, vol. 8, no. 5, pp. 3665-3677, 2021.
- [45] Yubin Zhao, Xiaofan Li, Huaming Wu, Cheng-Zhong Xu. Energy Beamforming for Cooperative Localization in Wireless Powered Communication Network, *IEEE Internet of Things Journal*, vol. 8, no. 17, pp. 13750-13762, 2021.
- [46] Chaogang Tang, Chunsheng Zhu, Huaming Wu, Qing Li, and Joel J. P. C. Rodrigues, Towards Response Time Minimization Considering Energy Consumption in Caching Assisted Vehicular Edge Computing. *IEEE Internet of Things Journal*, vol. 9, no. 7, pp. 5051-5064, 1 April1, 2022.
- [47] Guanjin Qu, Zihui Yan, Huaming Wu\*. Clover: tree structure-based efficient DNA clustering for DNA-based data storage. *Briefings in Bioinformatics*, Volume 23, Issue 5, September 2022, bbac336. Research Highlights in Nature Computational Science
- [48] Xiayang Li, Moxuanchen, Huaming Wu\*. Multiple Errors Correction for Position-Limited DNA Sequences with GC Balance and No Homopolymer for DNA-based Data Storage. *Briefings in Bioinformatics*, Volume 24, Issue 1, January 2023, bbac484.
- [49] Yixiao Wang, Huaming Wu\*, Rutvij H. Jhaveri, Youcef Djenouri. DRL-Based URLLC-Aware and Energy-Efficient Task Offloading for Internet of Health Things. *IEEE Journal of Biomedical and Health Informatics*, 2023
- [50] Subramaniam Subramanian Murugesan, Sasidharan Velu, Muhammed Golec, Huaming Wu\*, Sukhpal Singh Gill. Neural Networks based Smart e-Health Application for the Prediction of Tuberculosis using Serverless Computing. *IEEE Journal of Biomedical and Health Informatics*, accept, 2023
- [51] Min Xue, Huaming Wu\*, Ruidong Li. DNN Migration in IoTs: Emerging Technologies, Current Challenges and Open Research Directions. *IEEE Consumer Electronics Magazine*, vol. 12, no. 3, pp. 28-38, 1 May 2023
- [52] Chaogang Tang, Huaming Wu\*, Shuo Xiao. Lightweight Reputation Management for Multi-Role Internet of Vehicles. *IEEE Internet of Things Magazine*, vol. 6, no. 2, pp. 38-42, June 2023. ranked in the list of 50 most popular articles
- [53] Pengfei Jiao, Minghu Tang, Hongtao Liu, Yaping Wang, Chunyu Lu, Huaming Wu\*. Variational Autoencoder based Bipartite Network Embedding by Integrating Local and Global Structure. *Information Sciences*, Volume 519, Pages 9-21, May 2020.
- [54] Qiang Tian, Lin Pan, Tianpeng Li, Pengfei Jiao, Huaming Wu, Wenjun Wang. Lower Order Information Preserved Network Embedding Based on Non-negative Matrix Decomposition. *Information Sciences*, Volume 572, Pages 43-56, September 2021.
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