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Dear Dr. Haixun Wang,

It is with great pleasure that I nominate Dr. Wei Ding, professor of Computer Science at University of Massachusetts—Boston, for the position of Editor-in-Chief of the ACM Transactions on Knowledge Discovery from Data (TKDD). I have been elected a Fellow of AAAI, IEEE, ACM, AAAS, and SIAM for contributions to data mining and high-performance computing. As Wei Ding and I have overlapping research interests on knowledge discovery and data mining, I am very familiar with her outstanding research and service accomplishments over past 16 years. We worked closely in several NSF-sponsored workshops, SIAM SDM, IEEE ICDM, and ACM SIGSPATIAL conferences. Additionally, I served on panels with Dr. Ding during her tenure as the NSF program director of the Division of Information and Intelligent Systems from 2019 to 2023. Dr. Ding brings a wealth of expertise, a distinguished record of research, a commitment to education, and a fervent dedication to diversity, inclusion, and ethical review processes to the knowledge discovery and data analysis community. In the following, I highlight three different types of significant contributions Dr. Ding has made to the knowledge discovery and data mining community that make her an outstanding candidate as EiC of ACM TKDD.

First, Dr. Ding has made important service contributions to the research community in a wide variety of leadership and member roles. She served as the program director at NSF on a range of research programs from 2019 to 2023, covering areas such as biomedical research, information and intelligent systems, fairness in AI, biotechnology, scalable systems, formal methods, mathematical and scientific foundations of deep learning, and workforce development for advanced cyber-infrastructure. In this capacity, she has been involved with the review and management of hundreds of research proposals related to data mining and machine learning, and thus helped set the research agenda for the wider scientific community. She has also served as Associate Editors of ACM TIST, ACM TKDD, KAIS, and Elsevier Smart Health. She has been very active in organizing international conferences in knowledge discovery and data mining, and has received several service awards.

Second, Dr. Ding has distinguished herself as a strong data mining and machine learning scholar who has made significant contributions to many scientific disciplines including planetary science (two NASA Research Grants as PI and Site-PI), health sciences (two NIH R01 awards as MPI and one NVIDIA award as Site-PI), environmental science (two DOE grants). She has designed advanced new data mining algorithms and worked with her collaborators to deal with a wide variety of real-world data such as gene mutation data, residential burglary data, weather and climate data, web chemistry ISE sensor data, accelerometer sensor data, and impact craters in planetary images. Her research work has been used by the Boston Police Department and Lunar and Planetary Institute (partner with NASA). Thus Dr. Ding has uniquely positioned herself as a leader in these broad range of application domains via her innovative machine learning methods and data mining technologies.

Third, a notable aspect of Dr. Ding's contributions lies in her advocacy for diversity, ethics, and inclusion. Recognized with the 2019 WISAY Distinguished Woman in Science Award from Yale University, she actively fosters diversity within the research community, acknowledging the importance of varied perspectives in advancing the field. I also like to emphasize Dr. Ding's unwavering commitment to conducting fair and ethical review processes. Her advocacy for transparency and accountability aligns with her dedication to ensuring that all papers undergo fair and ethical evaluation. Moreover, she actively promotes diversity and inclusion in the review process, working to establish policies that guarantee equitable treatment for all reviewers and amplify diverse voices. This commitment to excellence in review processes was a significant factor in her receiving the NSF Director's Award in 2022, a testament to her exemplary contributions to the scholarly community.

Considering her exceptional research achievements, teaching experience, commitment to diversity and inclusion, and dedication to fair and ethical review processes, Dr. Wei Ding is exceptionally well-suited to assume the role of Editor-in-Chief for ACM TKDD. Her vision, experience, and unwavering dedication make her an ideal candidate to lead the journal into its next phase of growth and excellence. Thank you for considering her nomination, and please feel free to contact me if you need any additional information.

Sincerely,

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