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LETTER FROM THE EDITORS IN CHIEF

We are pleased to present the eighth issue of Volume 19 of the Proceedings of the VLDB Endowment (PVLDB).

This eighth issue of Volume 19 includes 13 papers spanning the following primary subject areas: Data Mining and Analytics (1); Data Privacy and Security (1); Database Engines (1); Database Performance and Manageability (1); Distributed Database Systems (1); Graph and Network Data (2); Information Integration and Data Quality (1); Machine Learning, AI, and Databases (3); Novel Database Architectures (1); and User Interfaces (1). Together, these papers represent a broad and diverse cross-section of the areas addressed by PVLDB.

A particularly prominent theme in this issue is the expansion of data management toward semantic, unstructured, and AI-assisted workloads. Several papers examine how database techniques can support new forms of querying and retrieval, including semantic query processing over multimodal data, hybrid search that combines lexical and semantic retrieval, and error-aware querying over unstructured data. These contributions reflect a broader shift in which data systems are increasingly expected to manage not only structured relations, but also text, embeddings, natural-language instructions, and model-derived outputs, while retaining the rigor, efficiency, and reliability expected from database systems.

At the same time, this issue underscores the continued importance of system architecture, performance, and evaluation methodology. The papers in this direction address memory-disaggregated key-value stores, operation-aware synchronization for modern in-memory indexes, and zero-shot advisory for lakehouse engine and format selection. Complementing these system contributions, the issue also includes work on benchmarking semantic query processing engines and a vision for drift-aware database benchmarking. Together, these papers highlight the need to rethink performance, configuration, and evaluation in an increasingly heterogeneous data-management landscape, where systems must adapt to new hardware, evolving workloads, and rapidly changing software stacks.

Graph and network data management also features prominently in this issue, together with privacy-preserving computation and classical data management problems revisited through new algorithmic and system lenses. The graph-related papers span resistance-distance computation on large graphs, GPU-based subgraph matching, scalable explanations for graph neural networks, and oblivious graph processing. Other contributions address secure computation over graph data, active-learning-based entity resolution, and compact indexing for exact density-based clustering.

Overall, this issue presents a rich combination of work on semantic and AI-enabled data processing, modern system architectures, scalable graph analytics, privacy-preserving computation, and rigorous benchmarking. We hope that readers will find in these papers both practical advances and new perspectives on the evolving foundations of data management.

We would like to thank the authors for their high-quality submissions, the reviewers and associate editors for their careful and thorough evaluations, and the PVLDB publication team for their continued support in producing this issue.

Yanlei Diao and Xiaokui Xiao
Editors-in-Chief of PVLDB Vol. 19
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