Editorial

We present the third issue of the seventeenth volume of the **Journal of Information Technology Review,** featuring the research below.

In the opening paper, "**Mapping the Contemporary LLM Landscape: A Descriptive Analysis of Benchmark Performance and Capability Stratification"** the authors conducted a comprehensive descriptive analysis of benchmark performance and capability stratification across contemporary LLMs. Utilizing the Comprehensive LLM Benchmark Dataset, comprising 390 model-benchmark observations from 2022 to 2024, we employ descriptive statistics, density estimation, and performance-tier categorization to map the performance landscape. The experimental results proved that the contemporary LLM landscape is highly stratified rather than homogeneous.

In the second paper, "**Probability Concentration and Rare-Event Characterisation in High-Dimensional Correlated Multivariate Bernoulli Systems**," the authors presented a comprehensive analytical framework for investigating sparsity, dominance, and tail behaviour in such discrete binary systems. Utilising a benchmark dataset of 20 correlated Bernoulli variables, they systematically analyse state spaces across increasing dimensionality (4 to 20 bits) by evaluating tail probabilities. They identified that high-dimensional correlated binary systems are governed by a small subset of highly activated configurations.

In the final paper, "**Explainable Machine Learning for DNA Methylation Prediction: A Comprehensive Interpretability and Biological Analysis,"** the authors created an explainable machine learning framework for DNA methylation prediction that integrates predictive modelling with multiple interpretability techniques. The experimental results proved that Explainable machine learning provides biologically interpretable insights into DNA methylation determinants while maintaining predictive capability.

We will bring more research in the next issue.

Editors