Prof. Johann-Christoph Freytag

Faculty of Mathematics and Natural Sciences
Department of Computer Science
Databases and Information Systems



Expertise

Prof. Freytag holds the chair of Databases and Information Systems (DBIS). His research interests include all aspects of processing and query optimisation in (object-)relational database systems, developments related to databases (such as semi-structured or graph based data), data quality, big data analyses as well as privacy support in database and information systems. Furthermore, Prof. Freytag is involved in many cooperations using database technology for applications such as geoinformation systems (GIS), bioinformatics, physics and life sciences. In the past, he received the IBM Faculty Award four times for collaborative work concerning databases, middleware, and bioinformatics/life sciences. In 2009 and 2010, Prof. Freytag won the HP Labs Innovation Research Award for his research in the field of databases and cloud computing. He was one of the organisers of the VLDB (Very Large Data Bases) conference in Berlin in 2003, the most important international database conference. From 2001 to 2007, he was a member of the VLDB foundation (VLDB Endowment Inc.). Since 2009, Prof. Freytag has been the spokesperson of the department DBIS of the German Informatics Society (GI).

Scientific Services

- Large IBM Server Linux/AIX with DBMS IBM DB2
- Computer cluster with 128 cores
- 30TB storage capacity

Testimonials

- Renowned American IT/DBMS manufacturer: improving existing database management systems (DBMSs) in the area of query optimisation; extending existing ETL tools
- Renowned American IT/DBMS manufacturer: extending DBMS functionality; designing and prototyping performance improvements in query processing; suggestions for future extension of the DBMS products
- Well known German software manufacturer: continuous consulting in the area of database systems, spe-cifically, query processing over several years to improve performance and functionality
- Well known German company: design and implementation of a query processing optimiser for the Lighweight Directory Access Protocol (LDAP) product of this company
- Consulting for various SMEs in Germany in the area of data modeling and process modeling using a state-of-the-art DBMS technology; using DBMS technology within their own products; strategic consulting for a long term use of DBMS technology

Topics / Trends

Big Data & Data Management
Internet of Things
IT & Cyber Security
Privacy Protection
Software Development

Scientific Institution

Einstein Center Digital Future (ECDF)

Industries

Energy, Utilities & Raw Materials
Information & Communication Technology
Aerospace
Machinery & Plant Engineering
Mobility & Logistics

Mentor for Startup

alvari GmbH

Humboldt-Innovation GmbH
Innovation Management

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