MonetDB/DataCell: leveraging the column-store database technology for efficient and scalable stream processing
Liarou, E.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
CURRICULUM VITAE

Education

10/2006 - now  PhD candidate
   CWI Database group, Amsterdam, The Netherlands
   Supervised by Martin Kersten

   Department of Electronic and Computer Engineering
   Technical University of Crete, Greece
   Thesis: Distributed Evaluation of Conjunctive RDF Queries
   over Distributed Hash Tables, 10/10
   Supervised by Manolis Koubarakis
   Committee: Vasilis Samoladas and Euripides Petrakis

   Department of Electronic and Computer Engineering
   Technical University of Crete, Greece
   Thesis: A Hybrid Peer-to-peer System with a Schema based
   Routing Strategy, 10/10
   Supervised by Manolis Koubarakis
   Committee: Stavros Christodoulakis and Vasilis Samoladas

173
Employment & Academic Experience

10/2006 - 09/2012  Junior researcher
                  Database group
                  CWI
                  Amsterdam, The Netherlands

7/2010 - 11/2010  Research intern
                  IBM T. J. Watson Research Center
                  Automated Component Assembly Middleware, Stream Group
                  New York, USA

09/2004 - 09/2006  Research assistant
                   in projects EVERGROW and ONTOGRID
                   (EU 6th Framework Programme IST/FET)

                   Intelligent Systems Laboratory
                   Technical University of Crete, Greece

                   Theory of Computation (Autumn 2005)
                   Technical University of Crete, Greece

Publications

Refereed Conference Papers


(3) Martin Kersten, Stefan Manegold, Stratos Idreos and Erietta Liarou. The Researcher’s Guide to the Data Deluge: Querying a Scientific Database in


Refereed Demo Papers

(1) Erietta Liarou, Stratos Idreos, Stefan Manegold, Martin Kersten. MonetDB/DataCell: Online Analytics in a Streaming Column-Store In Proceedings of the 38th International Conference on Very Large Data Bases (PVLDB), Istanbul, Turkey, August 2012

Refereed Workshop Papers

(1) Erietta Liarou and Martin Kersten. DataCell: Building a Data Stream Engine on top of a Relational Database Kernel. In Proceedings of the 35th International Conference on Very Large Data Bases (VLDB), PhD workshop, Lyon, France, August 2009


Book Chapters


National Events

(1) Participated with the EDBT 2009 paper “Exploiting the Power of Relational Databases for Efficient Stream Processing” in the 8th Hellenic Data Management Symposium, Athens, Greece, July 2009

(2) Participated with the ISWC 2006 paper “Evaluating Conjunctive Triple Pattern Queries over Large Structured Overlay Networks” in the 6th Hellenic Data Management Symposium, Athens, Greece, July 2007

(3) Participated with the paper “DataCell: A column oriented data stream engine” in the Dutch-Belgian Database Day, Brussels, Belgium, November 2007

Ongoing Research

The following two topics is ongoing research in the context of DataCell, an architecture that extends a column-store DBMS kernel to provide stream processing.

(1) Incremental Processing in a Column-store.
In this work we investigate how to efficiently support core streaming functionalities such as incremental stream processing and window-based processing within a column-store database architecture for handling large volumes of streaming data.
(2) Indexing in a Streaming Column-Store.
   In this work we investigate indexing and multi-query processing opportunities for large volume data streams in column-stores.

Honors and Awards

(1) **VLDB Best Paper Award in Challenges and Visions**
   In 37th International Conference on Very Large Databases (VLDB), Seattle, USA, September 2011.
   By the Computing Community Consortium, USA, 2011

(2) **SIGMOD 2012 Travel Award**
   By NSF, SAP and the SIGMOD Executive Committee, 2012

Reviewing

Reviewer
   TKDE
   Ad Hoc Networks

External Reviewer
   VLDB 2008, 2009, 2010
   ICDE 2009, 2010
   EDBT 2008
   DEBS 2008
   SSDBM 2008
   WISE 2012