Alexander Alexandrov

Contact

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Personal

Born on May 24, 1895 in Sofia, Bulgaria.

Dual Bulgarian/German citizenship.

Fluent in German and English.

Education

PhD in Computer Science, Technische Universität Berlin (exp. Q1 2018).

MSc in Computer Science, Technische Universität Berlin, 2011, summa cum laude.

BSc in Computer Science, Unversität Mannheim, 2008.

Employment

Research Assistant, Technische Universität Berlin 2011–2017.

Student Assistant, Technische Universität Berlin 2009–2011.

Web Developer, bitExpert AG 2007-2009.

Publications

For a full list of my publications please refer to my DBLP page.

Journal Articles

Implicit Parallelism through Deep Language Embedding. 2016, SIGMOD Record.

The Stratosphere platform for big data analytics, 2014, *VLDB Journal*.

Proceedings

Implicit Parallelism through Deep Language Embedding. SIGMOD 2015.

Benchmarking in the Cloud: What It Should, Can, and Cannot Be, TPCTC 2012.

Professional Service

Reviewer

I have served as an external reviewer for various peer-reviewed conferences and journals, among which SIGMOD, VLDB, TODS, and JFP.

Chair

Co-chair of the The 16th International Symposium on Database Programming Languages (DBPL 2017), held in conjunction with VLDB 2017 on September 1st, 2017, in Munich, Germany.

Teaching

I have co-organized the following courses at TU Berlin.

Datenbankpraktikum, *(SS 2012, SS 2013, SS 2017)*

Database Technology, *(WS 2011, WS 2012, WS 2013, WS 2014, WS 2015)*

Implementation of Database Systems, *(WS 2011, WS 2012, WS 2013, WS 2014, WS 2015)*

Big Data Analytics Project, *(SS 2014, WS 2014, SS 2015, WS 2015, SS 2016, WS 2016, WS 2017)*

Awards

SIGMOD 2015 research highlight award for "Implicit Parallelism through Deep Language Embedding".

Open Source

I am the lead developer of the following open source projects.

Emma. http://emma-language.org

A quotation-based Scala DSL for declarative, auto-optimized scalable data analysis pipelines.

Technologies: *Scala, Scala Macros, Spark, Flink.*

Peel Framework. http://peel-framework.org

A framework that helps you to define, execute, analyze, and share experiments for distributed systems and algorithms.

Technologies: *Scala, Spring.*

Myriad Data Generator Toolkit. http://myriad-toolkit.com

A development toolkit for scalable data generators.

Technologies: *C++, Python, XML.*

Interests

I am interested in bridging the gap between the demands of modern Big Data analysis platforms and the need for high-level, declarative analytics languages. The approach I take is to embed techniques and methods from database query optimization into compilation pipelines of embedded domain specific languages.

I am also interested in methods and techniques for scalable data generation and benchmarking of data analysis platforms.

Outside the area of computer science, my interests are mainly in cinema and musical folklore from the Balkans and the Middle East.

Last updated: September 5, 2017
`http://aalexandrov.name/assets/pdf/cv.pdf`