Georgios Giannikis

Curriculum Vitae



Info

Date of Birth 19.08.1982 Nationality Greek

Swiss Permit C

Work Experience

2014 - Now Oracle Labs, Principal Member of Technical Staff, Project RAPID

Project RAPID is a hardware-software co-design project targeting large-scale data management and analysis. My tasks and responsibilities include:

Design and implementation of high performance data processing algorithms.

Design and implementation of high performance, parallel bulk loading operation.

Participation in the discussions about software and hardware system specifications.

Participation in the discussions about efficient custom network protocols.

Development on x86, A9 and a custom instruction set architecture.

Education

2009 – 2014 ETH Zurich, Doctor of Sciences of ETH Zurich, Department of Computer Science, Systems Group.

Topic: "Work Sharing Data Processing Systems".

Advisor Professor: Gustavo Alonso. Co-advisor Professor: Donald Kossmann.

2007 - 2009 ETH Zurich, Master of Science in Computer Science.

Master Thesis Topic: "Daedalus: A Distributed Crescando System".

Supervising Professor: Gustavo Alonso.

2000 – 2006 University of Patras, Greece, Diploma in Electrical & Computer Engineering.

Major in Computer Science. Diploma Thesis Topic: "Optimization of Cache Memory Arrays using Cache Decay Techniques". Supervising Professor Stefanos Kaxiras.

Experience

2009 – 2014 ETH Zurich, Research & Teaching Assistant, Zurich, Switzerland,

Department of Computer Science, Systems Group.

Research Topics: Distributed Systems, Database Design, Systems Design & Architecture, Systems on Cloud, Data Processing, Systems on Modern Hardware.

Teaching Topics:

Parallel Programming, ETH Zurich, Department of Computer Science, 2014
Advanced Systems, ETH Zurich, Department of Computer Science, 2010–2013
Operating Systems and Networks, ETH Zurich, Department of Computer Science, 2010, 2013

- 2011 Amazon.com, Software Development Engineer Intern, Seattle WA, USA. Topic: "Amazon's DynamoDB". Responsible for the storage layer of DynamoDB.
- 2009 Amadeus IT Group, Software Development Engineer Intern, Sophia Antipolis, France. Department of Development, Reservation & Distribution. Responsible for the design and implementation of a new database engine for airline passenger data.

2000 – 2006 University of Patras, Research Assistant, Greece.

Department of Mechanical Engineering & Aeronautics, Lab for Manufacturing Systems & Automation. Development of international & EU projects. Web programming using .NET, J2EE, Oracle Forms and BPEL.

Patents

August 2012 United Stated Patent and Trademark Office, US/2012/0197868/A1

Topic: "Continuous Full Scan Data Store Table And Distributed Data Store Featuring Predictable Answer Time For Unpredictable Workload".

March 2011 World Intellectual Property Organization, WO/2011/023651/A1

Topic: "Segmented main-memory stored relational database table system with improved collaborative scan algorithm".

Selected Publications

2016 MQJoin: efficient shared execution of main-memory joins

Proceedings of the VLDB Endowement, vol. 9, no. 6.

2014 Shared Workload Optimization

Proceedings of the VLDB Endowement, vol. 7, no. 6.

2014 Work Sharing Data Processing Systems

PhD Thesis, ETH Zurich.

2012 SharedDB: Killing One Thousand Queries With One Stone

Proceedings of the VLDB Endowment, Vol. 5, No. 6.

2009 Daedalus: a Distributed Crescando System

Department of Computer Science, ETH Zurich, Switzerland.

2009 Predictable Performance for Unpredictable Workloads

Proceedings of the VLDB Endowment, vol. 2, no. 1.

Computer Skills

Operating Systems

Windows (excellent), Linux (excellent), HP-UX (excellent), SGI-Unix (good).

Programming Languages

Java + JNI (excellent), C/C++ (excellent), PHP (excellent), Python (good).

Web Programming

3 years hands-on experience on .NET, J2EE, Oracle Forms, Web Services, BPEL.

Language Skills

English: Excellent, Holder of Michigan Proficiency Certificate (C2)

German: Good, Holder of Zertifikat Deutsch (B1)

Greek: Mother Tongue

Distinctions

2007 ETH Zurich, Excellence Scholarship for Master Programme.

1997 10th Prize at the National Greek Mathematics Competition.

Interests and Hobbies

Photography, Basketball, Skiing, Travelling, Computer Games, Logical Puzzles.

References available upon request.