# Résumé

## **OBJECTIVE**

To conduct research on exascale query processing and cloud computing in a team of highly skilled and motivated individuals.

## CONTACT



## **EDUCATION**

**Doctoral Candidate in Computer Science** 

Swiss Federal Institute of Technology Zurich ("ETH Zurich"), Switzerland

Graduation scheduled for Q1/Q2, 2012

Master of Engineering in Computer Science

Cornell University, Ithaca, NY, USA, 2007

Cumulative weighted degree GPA 4.0857 on a 1 to 4 scale (A+ counts as 4.3)

Diploma of Software Engineering

University of Applied Sciences at Hagenberg ("FH Hagenberg"), Austria, 2005

Cumulative weighted degree GPA 1.13 on a 5 to 1 scale

Graduated with highest honours, best of class

## **EMPLOYMENT HISTORY**

September, 2007 to Present

Position University Assistant and Doctoral Candidate at ETH Zurich, Switzerland

Supervisors Prof. Dr. Donald Kossman, Prof. Dr. Gustavo Alonso

June, 2009 to August, 2009

Position Summer Internship at Microsoft, SQL Server Core, Redmond, USA

Supervisor Dr. César Galindo-Legaria

August, 2005 to June, 2006

Position Software Engineer at Philotech GmbH, Unterhaching, Germany

Supervisors LtCol ret. GAF Ingo Balszun, Dr. Norbert Oswald

August, 2004 to February, 2005

Position Researcher and Software Engineer at EADS Military Aircraft, Ottobrunn, Germany

Supervisor Dr. Norbert Oswald

## **RESEARCH EXPERIENCE**

Project E-Cast / Rubberband June, 2010 to Present

Advisors Prof. Donald Kossman, ETH Zurich; Prof. Gustavo Alonso, ETH Zurich

Summary A multicast protocol and middleware framework for elastic, fault-tolerant, and strongly

consistent cloud storage

Keywords cloud computing, multicast, fault tolerance, strong consistency

Résumé

Project Crescando September, 2007 to Present

Advisor Prof. Donald Kossman, ETH Zurich; Prof. Gustavo Alonso, ETH Zurich

Summary A distributed relational table implementation based on cooperative main-memory scans

and predicate indexing

Keywords main-memory query processing, parallel databases, predicate indexing

Project Microsoft SQL Server June, 2009 to August, 2009

Advisor Dr. César Galindo-Legaria, Microsoft

Summary Bottom-up join enumeration and bloom join heuristics for large query plans

Keywords join enumeration, bloom join

Project Games and Simulations February, 2007 to December, 2007

Advisor Prof. Johannes Gehrke, Cornell University

Summary Optimistic concurrency control in networked virtual environments and massive

multiplayer online games

Keywords distributed transactions, optimistic concurrency control

Project DARPA Grand Challenge: Urban Challenge August, 2006 to May, 2007

Advisor Prof. Daniel P. Huttenlocher, Cornell University

Summary Self-driving vehicles in urban terrain

Keywords sensor integration, knowledge databases, real-time middleware

Project Intelligent Agents for Real-Time Avionic Systems August, 2004 to June, 2006

Advisors Dr. Norbert Oswald, EADS; Prof. Karin Pröll, FH-Hagenberg Summary Intelligent, real-time, multi-agent-systems for unmanned air vehicles

Keywords real-time scheduling, expert systems, CORBA

## **PUBLICATIONS**

, Gustavo Alonso, Donald Kossman: E-Cast: Elastic Multicast. Technical Report. ETH

Zurich, TR-719. February, 2011

Georgios Giannikis, Jeremy Meyer, Gustavo Alonso, Dietmar Fauser, Donald

Kossman: Crescando (Demo Paper). SIGMOD 2010. Indianapolis, USA, 2010

, Georgios Giannikis, Gustavo Alonso, Dietmar Fauser, Donald Kossmann:

Predictable Performance for Unpredictable Workloads. VLDB 2009, Lyon, France

Nitin Gupta, Alan Demers, Johannes Gehrke, Walker White: Scalability for Virtual

Worlds (Short Paper). ICDE 2009, Shanghai, China

: Toward Intelligent Agents for Real-Time Avionic Systems. Diploma Thesis. FH

Hagenberg, 2005

#### **LANGUAGE SKILLS**

German (native)

English (quasi-native)

French (intermediate)

## **ASSOCIATIONS AND INTERESTS**

Member of the ACM, the IEEE, the IEEE Computer Society, and the GI (German computer society) Contributor to various open-source projects, including the popular game *Warsow* (www.warsow.net)

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Lively interest in world politics, astrophysics, and analytical philosophy

Loves travelling the world and discovering new foods and cultures

Enjoys snowboarding, golf, tennis, table tennis, and snooker