Tim Kaldewey

Resume

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EDUCATION

Ph. D. Computer Science, University of California, Santa Cruz, March 2010
Thesis: *Predictable High-Performance Data Management*, Advisor: Prof. Scott Brandt

M. S. Computer Science, University of California, Santa Cruz, March 2008

M. S. Network Engineering, Institute Eurecom, Sophia Antipolis, FRANCE & University of Technology Darmstadt, GERMANY, September 2004

HONORS

Best paper awards	SIGMOD 2010, RTAS 2008
Oracle Fellowship	2008 - 2010
University of California Regent's Fellowship	2005 - 2006
Eurecom Scholarship	2003

SELECTED PUBLICATIONS

C. Kim, Jatin C., N. Satish, E. Sedlar, A. Nguyen, T. Kaldewey, V. Lee, S. Brandt, P. Dubey, "FAST: Fast Architecture Sensitive Tree Search on Modern CPUs and GPUs", **ACM SIGMOD**'10, ***Best paper award***.

A. Di Blas, T. Kaldewey, "Data Monster", **IEEE spectrum**, Sept. 2009.

T. Kaldewey, "Programming Video Cards for Database Applications", **USENIX ;login**, Aug. 2009.

T. Kaldewey, A. Di Blas, J. Hagen, and E. Sedlar, "Parallel Search on Video Cards", **USENIX HotPar**'09.

T. Kaldewey, A. Di Blas, J. Hagen, E. Sedlar, and S. Brandt, "Memory Matters", **IEEE RTSS**'08.

T. Kaldewey, T. M. Wong, R.A. Golding, A. Povzner, and S. Brandt, "Virtualizing Disk Performance", **IEEE RTAS**'08, ***Best paper award***.

PROFESSIONAL EXPERIENCE

November 2010–present	**IBM** Almaden Research, *Research Staff Member*
Previously	**Oracle** Special Projects, **SAP** Research, **Lufthansa** Technik, **Software AG**

EXPERTISE

Parallel programming in CUDA (GPU), vector Assembly (SSE), multi-threaded C

Development of parallel algorithms for low-latency and/or high-throughput computing

Performance optimization of time-critical code

Linux kernel programming, real-time CPU and storage schedulers

RESEARCH INTERESTS

High-performance, large-scale data management on parallel systems

Parallel algorithms leveraging emerging parallel architectures

System resource management to provide predictable/guaranteed system and application performance