

Curriculum Vitae

Personal data

Name Rasmus Resen Amossen
Born June 9th, 1977, Gentofte, Denmark
Address Slåenhøj 36
2990 Nivå
Denmark
Email rasmus@resen.org
Phone 40 18 72 22
Civil status Married, two children (born 2006 and 2010)

Education

06/2007 - 11/2010 PhD in computer science from the Efficient Computation research group at the IT University of Copenhagen. Fields: algorithms, data mining and databases. Project title: *Scalable Query Evaluation in Relational Databases*.
09/1997 - 11/2005 Cand.scient in computer science at the University of Copenhagen. Primary interests: Algorithms, optimization and databases. Master thesis: *Constructive algorithms and lower bounds for guillotine cuttable bin packing problems*, with David Pisinger as supervisor.
08/1993 - 06/1996 Graduated (received my high-school certificate) from Gladsaxe Gymnasium.

Publications

2011 *A New Data Layout For Set Intersection on GPUs*; co-writer: Rasmus Pagh; presented at IEEE IPDPS 2011, Anchorage (Alaska), USA.
2010 *Better size estimation for sparse matrix products*; co-writers: Rasmus Pagh, Andrea Campagna; presented at RANDOM 2010, Barcelona, Spain.
2010 *Vertical partitioning of relational OLTP databases using integer programming*; presented at SMDB 2010, Long Beach, California.
2010 *Multi-dimensional bin packing problems with guillotine constraints*; co-writer: David Pisinger; published in Computers and Operations Research.
2009 *Faster Join-Projects and Sparse Matrix Multiplications*; co-writer: Rasmus Pagh; presented at the ICDT conference in Skt. Petersburg, Russia.
2005 *Constructive algorithms and lower bounds for guillotine cuttable bin packing problems*, master thesis, DIKU.

Work experience

07/2006 - 05/2007 Full time employment at Rapidis
Worked with various algorithm problems, primarily oriented to graph theory. E.g. the Vehicle Routing Problem with Time Windows (VRPTW) and design/implementation of a fast algorithm for deducing causes of breakdowns in physical networks. Construction of “fair” area division using Voronoi graphs. Design and implementation of a generalized framework for parallel computing for multi-core processors.
08/2003 - 01/2006 Consultant for Kalus
Responsible developer and architect on a system for online surveys. Was responsible for system adjustments for use in the Danish Parliament (Folketinget), DR (Danmarks Radio) and The Royal Library (Det Kongelige Bibliotek). Was later responsible for a complete redesign of the whole system. Among the

tasks were design of a new scripting language and implementation of a compiler “from scratch” in PHP, development of modularized reporting framework so that the same data construction mechanism could produce output to several media (HTML / PDF), auto-layout system with transactions, internationalization, database optimization, etc. Was furthermore responsible for deployment of two new developers and one graphic designer.

Reference: Klaus Svarre, ks@kalus.dk

- 07/2003 - 01/2005 Consultant for Danish Interpretation Systems (DIS)
Responsible developer and architect of a larger system for managing employees, hierarchic groups and locations with timezones. Moreover I designed a very generalized reporting framework in which there was a very high level of flexibility regarding the definition of 1) data extraction and 2) presentation hereof.
Reference: Mikkel Hack Nielsen, mhn@dis.cc
- 01/2002 - 03/2004 Part time employee in Maconomy
Employed in the portal group. Made relatively large redesigns, e.g. implementation of server side representation of client side screen layouts.
- 2000 - 2003 System administrator on Rigshospitalets Kollegium (a dormitory)
Implemented a complete redesign of a large intranet for handling print- and Internet traffic quotas, “scoring index” and committee administration for >420 users. Through a web interface non-linux-skilled people could manage firewalls, mail server and file sharing (samba) in a protected and “fool safe” way.
- 08/2000 - 08/2001 Part time employee in Realtime A/S
Java developer. We designed a portal for phone providers to control cell phone services.
- 07/2000 Full time system administrator at Realtime A/S
- 09/1999 - 06/2000 Freelance for Divitech
Implemented a driver in C++ for display panels at TeleDanmark. System administrator.

Other experiences

- 2006 - still Co-founder of Kuneco, a “questions and answers” service at kuneco.com. Participated in Venture Cup 2007 with this project and won 10.000 DKK for best pitch in phase 2 of the competition.
- 1998 - 2001 Tutor (rusvejleder) on the mathematics studies.

Languages

- Communication Danish: Perfect, both written and spoken.
English: Fluently, both written and spoken.
Understands German.
- Programming C/C++, C#, Java, GWT, Python, Perl, PHP, Bash

Spare time interests

Take care of my social circle. Cooking. Photography. Hear and especially play music: I play piano, oil drums, drums and percussion. Have played since I was 2 years old. Won gold in “Berlinske Rytmske Musikkonkurrence”¹ (above Cæcilie Nordby and Doky Brothers) as ten year old. Currently I play in a Brazilian inspired group (bayano.dk).

Copenhagen, December 14, 2010

¹a large dansih rhythmical contest