Stig Bakken's Resume

Resume for Stig Sæther Nordahl Bakken

Work Experience

This is an outline, further details are available on request.

Dec 2020-present: Huawei Cloud   Database Senior Architect

Design and implementation aspects of two HTAP (hybrid OLTP/OLAP) database products for use with GaussDB for MySQL (similar to AWS Aurora):

- Orion: ClickHouse-based solution with replication latency of seconds, designed and implemented (in a small team) transaction support, usability improvements and performance improvements.
- Hermes: DuckDB-based solution with replication latency of milliseconds, designed and implemented metrics/monitoring system and cloud control plane integration. Large team.

Technologies involved: C++20, CMake, MySQL, Python, ClickHouse, DuckDB, OpenMetrics, Prometheus, Docker, Ansible

Dec 2019-Nov 2020: TietoEVRY Financial Crime Prevention   Principal Software Engineer

Primary focus on data engineering for enabling efficient machine learning workflows for fraud detection.

Work included:

- Cloud architecture for data warehouse / analytics workloads for the financial services division, got ClickHouse approved by the Enterprise Architecture Board.
- Designed and led small team implementing PCI-connected data mirroring service, providing data catalog/governance features as well as aggregating data from Oracle, MySQL, plain CSV files and ClickHouse.
- Tech/tools involved: Java, Kotlin, Python, Oracle, MySQL, ClickHouse, AWS, Azure, Kubernetes

May 2009-Nov 2019: Zedge   Chief Technology Officer

Work included:

- Introduced SCRUM
- Modernized existing (PHP) codebase, introduced code reviews
- Containers / cloud migration, initially Mesos/Marathon, later Google Cloud / Kubernetes
- Continuous integration/deployment (CI/CD) with Jenkins and Mesos/Marathon (2013-2017)
- Continuous deployment / GitOps with GitLab and Kubernetes (2017-)
- Internal tools for Continuous Experimentation
- Mentoring/coaching technical staff, helping with all kinds of troubleshooting
- Hiring - interviews, talks and meetups
- Overall architecture and internal dev productivity / collaboration tools and processes
- Data/platform engineering - led team building a new data pipeline+warehouse for apps/web with focus on developer productivity (DX) and automation.

2006-2009: Google   Senior Software Engineer (Infrastructure and Search Properties)

Work included:

- Config-driven search (making it easier to repurpose core search)
- System for elastically scaling a search cluster based on predicted traffic
- Training data labeling system for Google News article category prediction
- Updated Google Alerts UI
- Recruiting - interviews and various talks around Europe

2003-2006: Yahoo! (acquisition, has since been acquired by Verizon) Engineering Manager, Yahoo! Image Search (2005-2006)

Technical lead, Yahoo! Multimedia Search (2003-2004)

Some early contributions to in-house search platform called Vespa which has later been open sourced.

2003: Overture, later Yahoo! Search Marketing (acquisition)   Integrated FAST and AltaVista Multimedia Search products

1999-2003: Fast Search & Transfer (aquisition, has since been acquired by Microsoft)

- Multimedia Search technical lead (2002-2003)
- part of alltheweb.com frontend team (2001-2002)
- built first FAST/Lycos Multimedia Search (1999)

- maintained FAST FTP Search (1999-2003)
- built and maintained FAST/Lycos MP3 Search (1999-2002)
- contributed to improving PHP performance and functionality for FAST products

1996-1998: Co-founded Guardian Networks

- main product 1: Hardened Linux distribution for firewalls (Guardian Networks Secure Linux)
- main product 2: Web publishing platform
- consulting work, including Unix sysadmin, Oracle, web development and building an academic Linux distribution

1995-1996: BIBSYS (Norwegian academic library database)

- Unix systems engineer
  - Unix resource during port of BIBSYS application from VM/ESA to AIX
  - System administration and automation

1994-1995: NTNU IT department

- internal Unix/networking training
- built NTNU's first centralized Unix account database
- maintained heterogenous Unix software distribution system (Store)

1993: NTNU Institute for Petroleum Technology

- summer internship installing AIX student lab

Publications

- PHP 5 Power Programming (Bruce Perens' Open Source Series) Prentice Hall 2004, 720 pages

  ISBN 0-13-147149-X (Published translations: Polish, German, Russian, Italian, Czech)

Internet / Open Source "claims to fame"

- 1994: Implemented first web interface to MS160 Archie, later known as FTP Search
- 1996-2003: Active member of the PHP Group, contributed support for Oracle, XML, DocBook-based documentation framework (still in use), Unix build system, extension package format+installer (PECL, still in use), some ODBC drivers, *printf and much more
- 1999-2002: Held various PHP-related talks and workshops at PHP/Apache/Linux conferences in Europe/US

- 2001-2004: Founded PHP Extension and Application Repository (PEAR) and built the initial infrastructure - later retired and handed off the project to The PEAR Group
- Apache Software Foundation Emeritus

Nominations and Awards

- 1999, Nominated: GNU Free Software Award 1999 for PHP work
- 2002, Nominated: the NUUG (.no USENIX branch) award for PHP work
- 2002: Nominated: ActiveState Active Award 2002 for PHP/PEAR work
- 1996: Won: VG (major Norwegian newspaper) "most useful web site" award for FTP Search
- 2003: Won: ActiveState Active Award (Programmers Choice) 2003 for PEAR
- 2004: Won: Search Engine Watch award 2004 for best Image search engine (Google came second)

PDF Version