Alan Davies

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Summary

I'm an experienced software engineer with excellent leadership and interpersonal skills as well as significant experience with client engagement. Although I didn't start out professionally as an engineer I've essentially been one ever since I was a kid. It just took me a while to finally do it professionally. I'm a geek at heart and best in a tactical capacity where I can be hands-on while also leading and mentoring a small team or working with clients. I'm a designer, builder, problem-solver, teacher, mentor, consultant and evangelist. I'm an incurably curious perfectionist who's just as much at home in a client presentation as chasing down a bug, designing a new system or optimizing some code.

Work Experience

FactSet Research Systems Inc.

1/2015 – 4/2019:	Vice President, Principal Software Engineer, Database Infrastructure	Norwalk, CT, USA

- Technical lead for all internal RDBMS infrastructure and related services
- Internal data consultant/architect/evangelist. Experienced with various database technologies: RDBMS (OLTP/OLAP/row/columnar), key-value, document, time-series, message queue, graph; scale-up and scale-out
- Provide consulting on data modelling, ETL, data pipelines, ingestion, transaction processing, reporting and more
- Lead a six-month research working group to vet commercial/open-source RDBMS technologies and select a standard for future internal use. Gained an in depth understanding of DB2, Oracle, PostgreSQL, SQL Server and MySQL/MariaDB
- Develop/support all internal RDBMS access/management APIs
- Wrote RDBMS training curricula. Deliver regular internal training programs and info sessions.
- Develop/manage/support a secure, elastic RDBMS proxy and multi-tenancy infrastructure
- Designed/built a custom CI/Test/CD system for all our group's internal products
- Code regularly in C#, PowerShell, SQL
- Regularly engage with external database technology vendors to vet and recommend internal technical direction
- Helped to develop FactSet's road map to move our application stack from our own data centres to public cloud
- Participated in several executive briefing/planning sessions at AWS and Microsoft

3/2012 – 1/2015:	Vice President, Principal Software Engineer, Content Integration Engineering	Norwalk, CT, USA

- Left management to lead an R&D project to design/build a new high-performance data-store/service for a specific dataset
- Researched scale-out columnar database technologies: Greenplum, Vertica, Hadoop, SAP Hanna, etc.
- Ultimately went with a custom solution with an in-memory data service backed by a SQL database. Designed, prototyped and led a team to build it. Features: Point-in-time data views, parallelized query execution, optimized data loads.
- Ported complex legacy C++ code (from acquisition) to C#. Lots of unit tests to verify logic.
- Adapted code from this project to create a generic versioned data caching layer for C#
- Authored a framework for the standardized management of SQL Server schema changes
- Engaged in several internal data architecture consulting projects for key constituencies across FactSet

12/2008 – 3/2012:	Vice President, Associate Director, Content Integration Engineering	Norwalk, CT, USA

- As part of a reorganization I shifted focus to lead content integration for various new high profile areas: reported company chart of accounts, analyst estimated company data, M&A, VC, ownership and private equity
- Dealt with attrition/morale issues after a significant reorganization. Identified new leaders and rebuilt teams.
- Built new working relationships with FactSet's growing inhouse content collection and collection engineering groups
- Led all engineering work related to the technology integration of a key acquisition
- Actively involved in the design of data feed methodologies for new FactSet data sets
- Established an initial offshore team in Manila. Developed a recruiting/training strategy with HR. Visited several times.
- Led a task force to focus on delivering major improvements in query performance for a high profile dataset. Lots of politics.

9/2004 – 12/2008:	Vice President, Associate Director, Product Engineering	Norwalk , CT, USA

- Moved to the US to lead International Database Engineering (Europe, Asia-Pac and a core of US activity too)
- Managed continued growth. Ultimately led a team of 30 across three regions including sub-managers.
- Drove several key infrastructure and product initiatives, and continued to lead the Internationalization (I18N) agenda

9/2001 – 9/2004:	Head of Asia Pacific Engineering	Tokyo, Japan

- I was asked to relocate to Tokyo and tasked with repeating the success of hiring database engineers in London
- Hired and trained a local Tokyo engineering team while also continuing to remotely manage London Database Engineering
- Re-architected the Asia-Pac databases and feed handlers to achieve significant improvements in reliability and performance
- Added several new data feed systems
- Managed vendor relations with various Asia-Pac data suppliers (stock exchanges, financial publishing companies)
- Initiated the effort to internationalize FactSet's codebase and ultimately deliver localized product
- Established the concept of an office-hours based geographically rotating "Engineer on Duty" to monitor key systems

12/1999 – 9/2001:	Software Engineer, London	London, UK

- Shifted over to Software Engineering to start to build the first non-US engineering team
- Hired and trained the first tier of London database engineers
- Personally developed several data feed systems. Built the first generation of generic data integration tools.

2/1999 – 12/1999:	European Product Development, London	London, UK

- Moved back to London to become the first representative of Product Development in Europe
- Worked extensively with several external data suppliers in order to host their data on the FactSet platform

4/1996 – 2/1999:	Product Development, Greenwich	Greenwich, CT, USA

- Requested a move to the US in order to join the nascent Product Development department
- Provided tier-2 support to clients. Worked with sales on custom client projects involving the FactSet API.
- Took many engineering classes at NYU. Taught myself C++ and actively started contributing code to the FactSet system.
- Product lead for the FactSet-Excel Link. Managed/developed several significant enhancements to Excel functionality.

4/1994 – 3/1996:	Client Services/ Sales Engineering	London, UK

- Employee #3 in FactSet's London office. Part of the core team trying to establish FactSet's business in Europe.
- Worked extensively with prospects and clients in London, Zurich, Geneva & Paris

Technical Skills/Experience

Operating Systems	Windows, OpenVMS, Linux (RedHat, Ubuntu)
Database Systems	SQL Server, PostgreSQL, MySQL/MariaDB, Oracle, Vertica, TigerGraph, Amazon Neptune, Couchbase
Primary Languages	C#, C++, SQL, Perl; PowerShell, Bash
Other	On-prem vs. cloud technologies (AWS/Azure), data structures and algorithms, data modelling, data warehousing, ETL, data scaling/sharding, test driven development, CI/CD, build systems, Perforce, Git, GitHub, threading, async programming, low latency services, object-oriented design, debugging

Other Skills/Experience

- Technical writing (documentation, training materials); presenting/training (have spoken at several conferences); blogging
- Software project management; personnel management; team building
- Sales and account management; consulting; technology evangelism
- Broad professional and social interests; diverse cultural experience; avid student of technology and history
- Many part-time technology/finance consulting engagements over the years: financial product design, cash flow modelling, risk analysis, technical architecture; various meetings/presentations at the US Fed and the US/UK Treasury on different initiatives

Education

9/1989 – 6/1992:	St. John's College, Oxford University – B. A. Honours, Mathematics	Oxford, UK

Miscellaneous

Dual national (UK/US). Interests: Playing guitar (blues, rock); repairing/hacking guitars/amps; music technology; scouting (assistant scout master for local troop, Wood Badge N2-72-17); Aikido; mathematics; puzzles; electronics; wood working; blogging