

Paul Bennett

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SUMMARY

Senior level technology consultant specializing in large-scale custom IT systems. Proven ability to synthesize and deliver unique and creative solutions to complex business and technology problems in all roles (analysis, design, and coding) in several industry sectors: Investment Banking, Derivatives Trading, Financial Services, Energy, Social Services and Shipping/Transportation.

SKILLS

Domain Knowledge: Financial Engineering. In-depth knowledge of the trading, pricing and structure of interest-rate derivatives, especially exotic instruments such as ladder swaps and knockout/barrier options.

Development Methodologies: Accomplished in agile methodologies (XP, SCRUM) and Test/Behavior-driven design (RSpec, SUnit, JUnit, Cucumber), requirements/use case capture (UML), design patterns, object-oriented design, SDLC methodologies.

Databases: Object and Relational databases: Gemstone, Sybase, MySQL, PostgreSQL. Expert knowledge of Object/Relational mapping techniques.

Web Technologies: Ruby on Rails, SOAP, Web Services. AJAX, jQuery, Tomcat, JSP, J2EE/Servlets, Swing.

Languages/Testing: Ruby, Java, Smalltalk, C/C++, SQL, XML, HTML, JavaScript

Distributed Computing: Scalable web architectures, CORBA, RMI/RPC, Messaging (IBM MQ), Distributed cache/Memcached, Enterprise Message Bus, Group Communication, Publish/Subscribe, TIBCO, ISIS, distributed systems theory.

PROFESSIONAL EXPERIENCE

Prajna Inc, *Founder*, New York, NY, Mar 1991 – Present

Provided consulting services to several Fortune 500 companies:

RecycleBank (www.recyclebank.com), *Consultant*, Dec 2009 – Present

- Design and code integration with an email marketing partner using Ruby/Rails and SOAP web services interface
- Solved problem of synchronizing large datasets using an SQL implementation of Set semantics

Northern Natural Gas, *Consultant*, May 2009 – Aug 2009

- Research and author an analysis document presenting new algorithms for resource allocation on a gas pipeline.
- Perform batch performance analysis and design/code improvements.

Key Accomplishments

- Resolved issues about viability of an analytic solution to a long-standing algorithm problem.
- Improved real-time batch performance by an average of 500% (5x), with one test case showing improvements of 10x real-time and 30x CPU time.

Pivotal Labs, *Consultant*, Nov 2008 – Feb 2009

- Analyze, design and code a web application for a Child Foster Care agency using Ruby/Rails

Key Accomplishments:

- Transition of the application from a HTML/JavaScript implementation to one based on a robust and extendable domain model

Suite LLC, *Consultant*, Jul. 2008 – Nov 2008

- Design/code a prototype derivative valuation system using Ruby/Rails and a proprietary analytics library.

JPMorganChase Inc, *Senior Associate*, New York, NY, Nov 2005 – Mar 2007

- Design and code a generic framework to do accrual pricing on a range of exotic derivatives.
- Analyze, design, code new derivatives pricing models, worked with front/middle office to test/integrate into production.

Key Accomplishments:

- Reduced operational risk and management overhead for several desks. Savings on one desk alone amounted to \$250K annually. Design facilitated easy extension for new products.

JPMorganChase, Inc. Consultant, May 2002 – Nov. 2005

- Conduct a performance evaluation on an in-house replacement for a massively parallel computing grid used to value/risk-manage portfolios of interest rate derivatives. Design & code tests and collect distributed performance data.
- Analyze, design and code a storage architecture and web services interface to allow risk management data stored in a proprietary format to be made available to the rest of the organization. Design and code a OLAP cube interface in Java/Swing to view data in a web browser.

Key Accomplishments

- Found several fundamental design and performance faults, preventing a potentially disastrous deployment of a faulty design. Developed a new approach for collecting distributed profile data.

Cygnifi Derivative Services LLC, Senior Developer, New York, NY, Oct 2000 – Sep 2001

- Design and code a Smalltalk pricing engine and a JSP/Tomcat front end via an XML service interface.

Keyspan Energy, Consultant, Nov. 1996 – May 2000

- Lead a requirements definition group defining improved functionality for the dispatchers' workstation of distributed Field Service Force Management system..
- Manage and mentor developers, train technical development teams in the usage of the Gemstone OODBMS.
- Design and code a system load simulator for stress testing, performed stress tests and code database benchmarks, conduct tests and verify server performance targets.

Key Accomplishments

- Successfully turned around a failing development project, and enabled a 4-fold reduction in team size.
- Increased performance of key features by 200%.

Orient Overseas Container Ltd., Consultant, May 1996 - Aug. 1996

- Conduct performance analysis on a WAN interface to a Gemstone OODBMS. Train ex-COBOL developer in Smalltalk development.

Key Accomplishments

- Achieved a 3-fold improvement in data access times.

JP Morgan Inc., Consultant, Aug. 1994 - Nov. 1995

- Architect/code a 2-tier client/server system supporting hundreds of users of a Fixed Income sales force.
- Design and code an Object-Relational mapper to allow Smalltalk objects to be saved in an RDBMS.

Key Accomplishments

- Design separates mapping meta-data and domain model, improving development and maintenance.
- Supported multiple inheritance mapping models, allowing flexibility in mapping to existing database schema.

Morgan Stanley Inc., Consultant, Mar 1991 – Mar 1994

- Architect and developer for a high-availability Enterprise Message Bus using group communication to provide global, reliable and consistently ordered data distribution for global equities trading.
- Lead infrastructure developer on a multi-currency portfolio accounting system.
- Design and code an Object-Relational mapping system allowing C++ objects to be stored in an RDBMS.

OTHER EXPERIENCE:

Dialogic Corp.. Parsippany, NJ. Senior Scientist, May 1988 – Mar 1991

AT&T Bell Labs, Murray Hill, NJ. Consultant, Mar 1984 – Dec 1988

EDUCATION:

M.Phil, Computer Science, University of Sussex, Brighton, UK.

Thesis title: 'Monix – an Operating System for Distributed Computing'. My research topic was the design of a distributed operating system based on UNIX

B.Sc, Computer Science, University of Sussex, Brighton, UK.