

BERT VERMEIREN



CONTACT

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EDUCATION AND TRAINING

06/1996

Master Degree in Computer
Science

V.U.B
Brussels

- Magna cum laude
- Object Oriented Design & Development (C++, Smalltalk, Java, Scheme)
- Patterns & reusable design frameworks, algorithms and data structures
- Network protocols and techniques (TCP/IP, ATM, ISDN, ...)
- Techniques in the "graphics" world
- Database concepts, internals & SQL-language Compilers and interpreters
- Neural networks, robot design and linguistic Artificial Intelligence, Finite state and push down machines

SUMMARY

Experienced principal software engineer/architect with exceptional technical competence and proven records of successfully building complex and mission-critical products. Full product life cycle experience from requirements gathering, prototype, architecture, design, implementation, testing and deployment up till customer support. Expert and more than 20 years of experience in large-scale Object Oriented software design and implementations in different technologies. Technical team leadership by coaching juniors, leading brainstorm sessions, monitoring and steering project/release life cycles. Strong and broad foundation in different technical area's in order to quickly act on new challenging projects and environments. An excellent problem-solver, able to manage complex systems and favoring simple designs to master complexity.

SKILLS

06/1992

VSO - Industrial Sciences

T.I. Don Bosco
Halle

- 8h mathematics/week, focused on Civil Engineer program
- Final avg. result : 85%

PROFILE

- <https://vermeiren.org>

LANGUAGES

Dutch: First Language

English: B2

Upper Intermediate

French: B1

Intermediate

- Java (25 years professional experience), J2EE, JMS /IBM MQ, Java Beans, Swing, JNI, JDBC, JSP/Servlets, XML, DOM/SAX, XSD, XLS(T), REST/Webservices, JUnit, EasyMock.
- IP, DNS, TCP/UDP, HTTP, HTML, Javascript, CSS, AJAX, VUE3,, SEDA-architecture
- Eclipse, MS Visual Studio, Ant, Jprofiler, WebLogic, JBoss/Wildfly, Websphere Application Server, TopLink, Hibernate, MQ Series
- C, C++, Delphi, Smalltalk, Lisp, Scheme, bash, Basic, Prolog, C#.net (Microsoft certified), ASP.Net, ADO.Net, ODBC, CORBA
- GIT, CVS, Clearcase, PVCS, Subversion
- Linux, Docker, Kubernetes, pfSense, VPN, Proxmox virtualization, VMWare workstation, Virtual Box, Wordpress/Hosting,
- Oracle (RAC), MS SQL Server, Berkeley DB (embedded) , Access, MySQL, Postgress

EXPERIENCE

Software Product Architect
SWIFT, ex-Sungard

- 01/2010 - Current*
- Product development: AMH (Alliance Messaging Hub).
 - A modular, multi-network, high volume messaging hub consolidating all of a bank's financial messaging under one roof.
 - Design and implementation of core highly multi-threaded queuing components allowing horizontal scaling on top class multi core server infrastructure.
 - Integration of liquibase framework for automatic database upgrades.
 - Enhancements on the in house framework design in a J2EE environment for major J2EE Application servers (JBoss, WebLogic,

Websphere).

- Design and implementation of new clustering technology / multi node setup in the AMH overall architecture for scalability and auto failover purposes.
- Extensive Java performance profiling and tuning.
- Oracle (RAC) tuning and profiling for massive data throughput and storage.
- Fault tolerant design / Active-Active technology, scalability and performance is utmost importance.
- Design and implementation of partitioning/lifecycle/performance on Oracle level + application level.
- Design and implementation of guaranteed single put and receive on MQ and JMS level with database interaction.
- (lightweight clustered XA replacement) + load balanced, fault tolerant, active/active MQ integration.
- Enhancements on the DAO layer by optimizing hibernate calls/generating straight jdbc access, optimizing database access via stored procedures, oracle indexing hints, etc.
- ElasticSearch integration (Lucene indexing) for high volume, high throughput query facilities.

Principal Software Engineer
EMC Belgian Development Group

01/2003 - 01/2009 • Product development: Centera.

- EMC Centera is the world's first magnetic hard disk-based WORM (Write Once Read Many) storage device.
- Using traditional magnetic hard disks as a data storage medium, the EMC Centera offers greater performance over other archival media types such as optical and tape.

- Based around a sophisticated set of software API functions that control the creation and storage of data objects, the EMC Centera offers secure, reliable storage of data objects and satisfies many regulatory compliance requirements.
- Current install base around 14,000 deployments world-wide.
- Design and implementation with additional enhancements of Application Server concepts according to the SEDA-architecture (Architecture for highly concurrent server applications).
- Focus on scalability, performance, overload and resource protection, redundancy and self healing.
- Design and implementation of core components allowing heavily multi-threaded algorithms in a fully interconnected networked/clustered environment.
- Extensive Java/Linux performance profiling and tuning.
- Heavy focus on quality and testing/testability.
- Experience in product life cycle, service packs, hot fixes and release management.
- Technical team leader.
- Agile development and scrum methodologies applied.

Senior Software Engineer/Consultant, Project/Client
The Capital Markets Company / CAPCO

- 01/2000 - 01/2003*
- Société Général (Major European Investment Bank) Implemented several e-private banking websites.
 - These allow the banking group's clients to have a consolidated view on their assets and liabilities.
 - Trading capabilities and CRM are other key areas of the application.

- The entire architecture is strongly focussed on security and anonymity for the bank's customers.
- Link via reuters API's for real time market data and portfolio performance numbers.
- Responsible for Database Design and the integration between EJB and database model.
- Responsible for legacy integration, including analysis, design and implementation.
- Responsible for the overall build process.
- Provided overall on-call support for the various production sites.
- Responsible for updates and fixes.
- Project/Client: Clearstream (Major European Clearing House, Luxembourg) The CreationOnline product is an ideal exception management tool for online instruction input, queries and report management.
- The entire life cycle of cash and securities instructions can be displayed for quick analysis and management decisions.
- Designed a strategy and implemented scripts for stress-testing a J2EE architecture based application.
- (Web Farms, Load Balanced, Clustered Application Servers, 1000TPS).
- Based on cyclic stress-testing results, several performance improvements were proposed and made.
- The Mercury Interactive LoadRunner tool was used as the basis for these stress-tests.
- Product: STP Bridge STP Bridge provides seamless connectivity, monitoring, and input/change functionality to current transaction matching utilities, including Omgeo CTM and Oasis Direct.
- Using a network interface layer that supports multiple protocol connections, (like SWIFT) STP Bridge provides simultaneous connectivity to multiple utilities and other

shared service providers around the globe built on the latest .NET technologies on top of the Microsoft Biztalk product.

- (Message broker and transformation engine).
- Different workshops with the Biztalk team held at the Microsoft HQ Campus site Redmond (US).
- PreBeta involvement in the next version of BizTalk (2004, Voyager).
- Architecture, product design, database design and development of different components.
- Designed and implemented optimal MS BizTalk integration.

Software Engineer EDS

- 01/1996 - 01/2000*
- Product: CreditWare, Software Factory A generic business/data model around the financial credit business was extracted/designed by reusing the experience from different EDS customers.
 - Responsible for the architecture, design & implementation of a three-tier framework in the 3 development lines : Visual Basic 6, Delphi 5.0 and Java 1.1.7.
 - Designed and implemented general Service Components written in Visual Basic 6.
 - Design of a generic object-relational mapping model/tool.
 - Project/Client: Argenta CCMS (Core Credit Management System).
 - Design & Implementation of a module for the creation of printable dynamically generated documents via Delphi 3.0, MS-Word 97 (COM/DCOM Technology) & Oracle 7.3
 - Project/Client: De Volksverzekering (DVV) Prisma - Exacta Project.
 - Research and implementation of three-tier framework in VB 4.0 & framework for

conversion routines working on flat files
(output from mainframe environment with
hierarchical database system).

- Detailed research and knowledge transfer of generic data layer towards MS.

ABN-AMRO Bank | Brussels

01/1990 - 01/1995 • Department : Foreign Transfers.

- Processing of foreign money transfers. (SWIFT).

ABN-AMRO Bank | Brussels

01/1996

- Dealingroom.
- Design & development of statistical tools used by the dealers in a Visual Basic for Excel environment linked to a MS SQLServer database.

PERSONAL INFORMATION

- Year of Birth: 1974
- Nationality: Belgian
- Driver License: B

REFERENCES

References upon request