Big Data Architect (12 years of experience.)

Agile software development expert with excellent technical level, good team-leading skills, and business oriented mindset, looking to further enrich his expertise in challenging Big Data environments. Specifically, I am interested in addressing problems arising where big data and realtime requirements are meeting. I am also interested in machine learning and statistics.

Skills

Business oriented mindset.

- In a mass payments environment, greatly reduced cost at STET by replacing costly vendor-made bricks by opensource ones.

Big data system architecture and implementation - realtime and analytics.

Storm - distributed and fault-tolerant realtime computation , Cassandra (NoSQL), Multithreading.

XP/TDD Agile coach.

- Test-driven development.
- Continuous integration.
- Hired and full-stack developers in a collective code ownership environment.
- Experienced in refactoring and performance optimisation

Continuous Delivery - Time-to-market

- A front-office-to-back-office complete vision of the I.T. system.
- Able to deliver and deploy quickly to meet time-to-market demand.

Main Java/Scala Technical Skills

Java 6, Spring, Scala, Multithreading, Refactoring, Streaming Transformation, XML, XSLT, XSD, WoodStox, WebSphere Application Server, Python

Statistics and probabilities

Knowledge and interest (Worked on ACH statistical optimization via monte carlo)

Certifications.

Datastax Cassandra 1.2 Certification Test

Result : 80%
The Credential of *Cassandra 1.2 Certification Test* is hereby granted to Lucas Bruand to certify the DSCCD Exam has been passed Test Date: October 17, 2013

Functional Programming Principles in Scala-EPFL

LUCAS BRUAND HAS SUCCESSFULLY COMPLETED THE ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE'S ONLINE OFFERING OF *Functional Programming Principles in Scala*

Result : 96% with distinction
This advanced undergraduate programming course covers the principles of functional programming using Scala, including the use of functions as values, recursion, immutability, pattern matching, higher-order functions and collections, and lazy evaluation.
December 2012

Education

Ecole Centrale Lyon - 1999 / 2002

Master of Engineering
Major : I.T.

Preparatory School for Grande Ecole 1996 / 1999

Major : Math.

Languages

French : Native speaker
English : Fluent

Professional Experience

STET - mar 2011 / now

Head of development (empl.)

Leading the 16-dev team that delivers STET's java high performance system with european ambitions :

- High-resilience/Critical system - *Systemically Important Payment System* in France and Belgium.
- High-performance system - Settling over *13 billion payments* a year - *300 millions payments* a day peak.
- XP Development - Striving to deliver the highest quality.

STET future architecture

- Ability to match payments with each other and yet scale.
- Store individually payments (rather than in batch/files) in Cassandra.
- multi-active resilience (storm/cassandra).
- Increased parallelism.

Achievements

- Design and implementation of a new prototype of Automated Clearing House, in NoSQL Storm/Cassandra. Move solution from batch-oriented to per-transaction realtime computation and storage. Objective: Provide new Added-Value Services. Provide cluster multi-active, multi-datacenter resilience.
- Technical lead of an ambitious recast of the legacy technical foundation of the STET CORE solution around new opensource bricks and a streaming oriented architecture (rather than using an ETL) to : reduce cost, increase reliability, reduce time-to-market, warrantee STET independance towards its providing vendors.
- Designed and delivered a major functionnal change of its STET for the future Belgian CSM Including a new Multi-cycle Delivery After Settlement for Belgium. Delivered on time.
- Continuous Delivery : Implementation and deployment of a new automated process of deployment of the whole production environment with a view to deploy more frequently, in a reproducible way across all environment (Acceptance, preprod, prod etc...): Reducing software stocks, reducing time-to-market of new features and improve reliability and safety of deployments.
- Took part of STET's business development in France (Met and advised Belgian customers notably on security issues).
- Designed and kickstarted STET's Linux development autobuilt infrastructure. (Continuous Integration, Workstation, Ticket Tracking) Moved architecture from *Windows* to *Linux* - cost-reduction and more similarity with production platform (*AIX/Unix*)
- Head of development : Organisation of Development team, delegation task management to team leaders, advancement tracking, set objectives, formal evaluation of developers, team motivation & implication (awareness of business and production needs), team development skills growth.
- Specific performance supervision : Organisation of actions to optimize software to meet the ambitious benchmark goals (16 billions payments a year, daily peak at 300m)
- Personnally monitored deployment in production.
- Moved its Source Code Management platform from Subversion to Git to deal with growing number of branches (with growing business needs coming).

Skills

Langages : Java 6, Scala 2.9.2, shell scripts
Build tool : maven 2.2
IDE : Eclipse, intellij IDEA
Framework : Spring, WAS
Database : DB2 - ORM : Proprietary. Cassandra.
SCM : Git
Continuous Integration : Jenkins.
Deployment solution : GLU
Ticket tracking : Mantis.
Benchmark/Optimisation of performance. (profiling)
Java Encryption Framework : JCE, (bouncycastle)
XML parsing and transformations (XMLBeans, XSLT, XML)
Methodologies : XP/Agile - Iterative, Test Driven Development, Continuous Integration, Refactor, Collective Code Ownership
GUI: Struts

Capgemini - may 2006 / mar 2011

IT Architect (fixed price contractor for STET)

Mass payments systems.

- XP Methodology
- Technical leader for a 8 developers team building the Critical Mass payment system of STET.
- Participation in bids.
- Designed and delivered on time initial release of the CORE STP settlement system processing both legacy and SEPA(XML) payments.
- Using XP/Agile methodology : Continuous Integration using Jenkins.
- Using XP/Agile methodology : Test Driven Development. (approx. more code for test than for live code).

Skills

Langages : Java 1.4, WebSphere Transformation eXtender
Build tool : maven 2.0
Framework : Spring
Database : DB2 - ORM : Proprietary.
SCM : Subversion
Methodology : XP/Agile - Iterative, Test Driven Development, Continuous Integration, Refactor, Collective Code Ownership

STET Core

STET Core solution was created by a joint venture IBM/Capgemini.

- CORE Exchange Straight Through Processing system 500 kLOC. (build approx 240 man.month)
- GUI (500 kLOC)
- Gateway (50Kloc)
- Scheduling componant (75Kloc)
- 19 developers

Armonys - feb 2005 / may 2006

BNPP Arbitrage - Senior Developer (contractor)

Front/middleoffice Exotic Derivatives Repository Opus (3p team)

This central repository for all configured exotic derivatives in BNPP Arbitrage trading desk comprehended :

- historical tracability of exotic derivatives.
- Feeding the bank's pricer with market datas and exotic derivatives configurations to compute positions and greeks.
- Agile development with short iteration (around 2 weeks)

Achievements

- Restored scalability by refactoring the database model.
- Introduced a clustered architecture. (Weblogic cluser)
- Introduced a clustered cache to speedup querying (tangosol coherence)
- Moved SCM from Visual Source Safe to Subversion.

Skills

Java 1.4
BEA WebLogic
Oracle SQL, Maven, Tangosol Coherence, Jakarta Commons, CVS

Atos Origin -Project SCIL - Junior Developer – apr 2002 / feb 2005

A 4p Java dev team maintaining a master data repository for the GSIT.

Achievements

- Upgrading websphere from version 3.5 to version 5
- New features development
- Maintenance and cleanup of KSH scripts
- Migration to a CVS repository (from Visual Age repo).

Skills

WebSphere Studio Application Developper, WebSphere Application Server, Java,
J2EE (JSP, Servlet, EJB session et entity), Oracle SQL, UML, Scripts KSH, CVS

Atos Origin - Project Fundtech Payplus CLS - Junior Developer and Support hotline - apr 2002 / feb 2005

Customers : Crédit Agricole, DEXIA, KBC

CLS is a continuous automated clearing house for the Forex market.

Achievements

- Design and implementation of a monitoring and control GUI.
- Product maintenance
- User support (hotline in English)
- Acceptance support.

Skills.

C, Tuxedo, Oracle, MQ Series, Lex/Yacc (MTXXX Swifts FIN messages parser)

OSS projects:

- Freetle - creator (https://github.com/lbruand/freetle)
- just4log - creator - Attempt to (http://just4log.sourceforge.net/)
- MrPostman - contributor (http://sourceforge.net/projects/mrpostman/)
- ViewVC - contributor - Source Control Management FrontEnd - then used on sourceforge (http://viewvc.org/)