

PRINCIPAL ARCHITECT

Frameworks / Large-scale Infrastructure and Distributed Applications / Java / J2EE Scala / Objective-C / OpenArchitectureware / Database Technologies

An avant-garde Java and J2EE Architect with a Smalltalk background, I specialize in developing frameworks, APIs, large-scale infrastructures and distributed applications in challenging environments. Current passions include Scala – the future of computing on the JVM, and iPhone application development. Some of my key skills include...

- Identifying and leveraging the best of emerging technologies and tools**
- Developing frameworks that encapsulate best practices and the highest consistent standards**
- Building systems that are scalable and expandable**
- Troubleshooting and fixing problems that no one else can fix**

As one who has architected and built extremely large and complex systems, I have a **MSc** in Computer Science from **University of Twente, the Netherlands**, and am a **published author**.

Technical Proficiencies:

Java, Scala, Objective-C, XCode, Eclipse plugins, SWT, XML, XSLT, REST, JAX-RS with Jersey, Spring framework, JPA and Eclipselink, YUI, AJAX, Javascript, JAXB, OpenArchitectureware, Maven, JUnit, Vitria, Smalltalk, SAML

Selected Accomplishments

Built own code generator. A Perot Systems client needed to **send only differences between two complex object graphs over the wire**, requiring extremely tedious code. Generated code is faster than reflection, so built a code generator that generated all main objects and the entire domain model, including behaviors we could not have written manually. This also gave us an undo redo facility on the server. **Wrote a paper** "Metadata Driven Multi-Artifact Code Generation Using Frame Oriented Programming", which was **published** in the OOPSLA 2002 workshop titled "Generative Techniques in the Context of Model Driven Architecture" (can be found here: <http://www.volantec.biz/Metadata-driven.pdf>). Cited by seven other publications.

Built code generator using OpenArchitectureware. For DST Health Solutions, used OpenArchitectureware to create domain models that allow for role modeling – objects being dynamically classified and having different behaviors over time.

Career History

CTO, Volantec.biz, 2010 to Present. Currently developing prototype iPhone application for release on the new OS4 when it becomes available. Using Objective-C and many of the built-in frameworks like UIKit, CoreData, and the new Local Notification mechanism of OS4. This is currently taking up most of my free time and I enjoy every second of it!

Principal Architect, DST Health Solutions (health care solutions provider) 2005 to Present. Currently working on several projects varying from a persistence framework using JPA and Eclipselink to RESTful web services using JAX-RS and Jersey to domain specific projects related to the industry such as provider pricing and product design. The persistence framework supports automatic database auditing, result set sorting, pagination and effective dating. The REST framework delivers this data to (browser based) clients using AJAX and the YUI user interface toolkit from Yahoo. It supports what is often referred to as HATEOAS (Hypermedia as the Engine of Application State).

Consultant, Volantec.biz, 2004 to 2005. **For IBM:** worked on Eclipse based development tools for VoiceXML services. These were developed in the **Rational Application Suite** and later **contributed** as the vtp Eclipse project at eclipse.org.

Earlier: IT Specialist: EDS/VHA Partnership building HL7 Messaging Infrastructure for Java services and applications; and **Infrastructural Modeler / Architect: Perot Systems.** Various client projects included Customer Support Application for a mutual fund company – built a Visualworks-like UI toolkit in early Java to enable rapid UI development; **Product Planning and Distribution** application for a retailer – using Gemstone application server and OO database, **saving the client millions of dollars** in wasted inventory; Catalog Management System for an internet startup – built an **ontology management system** on Gemstone; HIPAA clearing house for a very large hospital chain, automatically translating medical claims from UB92 to EDI and scrubbing them of errors and submitting them to Medicare using code generation and Vitria workflow.