

# Yevgeniy (Eugene) Kaganovich

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## Objective

A permanent position in a senior technical role that will utilize and broaden my expertise in architecture, design, and development of highly performant multitier software applications.

## Professional Skills

### *Software Design and Development*

- Object-Oriented Programming
- Web development
- GUI
- Service Oriented Architecture
- Parallel Programming
- Internationalization and localization
- Database design

### *Computer Languages:*

- Java: Core, JEE, Swing, JCE, Concurrent
- Frameworks: Django, Ruby on Rails
- XML: DOM, StAX, XSLT, XSD, WS-\*
- Web: Javascript, JSON, AJAX, GWT
- DB: SQL, Stored procedures
- Scripting: Python, Bash, DOS, PHP, Perl

### *Domain Knowledge:*

- Cloud Computing
- Web Service integration
- Digital Rights Management
- Secure communication
- Content management

## Experience

### **05/03-Current Software Architect**

*Intertrust Technologies, Santa Clara, CA*

*Seacert Corporation, Santa Clara, CA (Intertrust subsidiary)*

Design and development of various web-based and standalone products and libraries in the DRM space.

#### *Hosted Marlin Service (HMS)*

Lead design and development of the REST service that enables media portals to provide on-demand Marlin DRM licenses to their customers. Core services implemented using JEE (Servlets, JSP, JDBC, JNDI). Customer front end implemented as a Django web application. The service is deployed on the Amazon Web Services (AWS) platform.

#### *Marlin Broadband DRM Server*

Provided various enhancements to the community-licensed DRM Server JEE application. Performed comprehensive profiling and identified bottlenecks using Eclipse TPTP and VTune that resulted in doubled transaction throughput.

#### *LibTomCryptProvider*

Implemented a custom JCE Provider wrapping the LibTomCrypt C crypto library using JNI. Resultant implementation outperforms BouncyCastle by 4x for RSA operations.

#### *Certificate Provisioning Tool*

Participated in design and development of the tool used by Seacert CA to generate device and service credentials for Marlin and other echosystems. The application provides high level of security by utilizing a custom JCE provider wrapping Thales NShield HSM module and being deployed in a secure environment with multiple custody protocols. Multithreading is extensively utilized to take advantage of multicore architecture of the HSM module as well as host PCs.

#### *CPT Configuration Editor*

Developed a Swing-based editor GUI that provides support for rapid development of profile configuration files that drive the Certificate Provisioning Tool.

#### *Seacert Unwrap Tool*

Solely responsible for design and development of the Java application that Seacert provides to customers for decrypting credentials produced by Seacert. The Application interfaces with GemAlto.NET smart cards using the Sun PKCS#11Provider.

#### *SyncTV Integration*

Completed various development and prototyping projects to integrate the SyncTV service with Intertrust's software components. The service is implemented in Ruby-on-Rails and provides web-based

- Implemented web-based content navigation
- Implemented integration with Wasabi DRM browser plugins to add support for downloading and obtaining rights for Marlin DRM-protected content through the web UI
- Implemented 10-foot UI support and prototyped integration with Media Portal for HTPC demo
- Enhanced the SyncTV Yahoo TV Widget to prototype integration with an Ad recommendation engine

#### *Policy Editor*

Solely responsible for design and development of a Swing-based editor to create/modify authorization policies for a proprietary XML-based policy assertion language. Castor Java-XML binding toolkit was used for XML processing.

#### *Specifications*

Participated in development of various Marlin DRM specifications

## **08/99-05/03 Senior Software Developer**

*IONA Technologies, Santa Clara, CA*

*Netfish Technologies, Santa Clara, CA (Acquired by Iona May 2001)*

Design and development of both client-side and server-side application framework and components for B2B and Web Service integration.

#### *Developer Suite*

Developed a Swing-based UI Framework for pluggable editors for various resources used at runtime by the B2B server. Maintained the Swing component library.

#### *Mapper*

Implemented a Swing-based editor that allows users to visually define a map between two XML documents. The tool generated XSLT-like output. Drove the design of the counterpart runtime component architecture.

#### *Internationalization*

Participated in the effort to internationalize both design-time and runtime product components. Worked with the Principal Architect to define and implement a custom internationalization library.

#### *Web Service Integration*

Responsible for integrating the Web Service Container and the Processflow Engine components, including seamless UI and runtime integration.

## **01/98-08/99    Software Developer**

*Oracle Corporation, Redwood Shores, CA*

Design, implementation, and maintenance of database-driven web applications

### *Web Content Versioning System*

Developed a web-based source control system to allow non-technical users to manage web (HTML + media) content, including version control, and develop/stage/deploy lifecycle. The application was written in Perl on top of RCS version control system.

### *Product Portal*

Developed a database-driven highly structured intranet portal to aggregate and present marketing materials for all Oracle products. Designed and developed web-based Administration interface to enable content providers to self-administer their content using pre-defined style templates.

### *Partner Profile Views*

Researched, proposed, and prototyped XSL-based framework for rendering data to different media formats (HTML, spreadsheets).

### *Partner Profile Search Engine*

Maintained a high-speed Oracle Partners search engine written in C++.

## **Education**

### **09/94-12/97 Bachelor of Science, Computer Science**

*California Institute of Technology, Pasadena, CA*

## **Publications**

- Daniel M. Zimmerman, Brian Rothstein, Yevgeniy Kaganovich, Khai Pham  
*"Constructing Client-Server Multi-Player Asynchronous Networked Games Using a Single-Computer Model"* in [IASTED International Conference on Software Engineering](#), November 1997