THUY H HOANG

SOFTWARE ENGINEER

Highly productive Software Engineer with over a decade of experience in the software industry developing iOS mobile applications and J2EE web applications with a deep understanding of the business.

- Bachelor of Science in **Mathematics** and **Computer Science**
- Development of native mobile iOS applications.
- Hands-on experience in Java development and runtime environments for J2EE platform.
- Knowledge of CMMi and RUP: Authored technical documents and UML diagrams that included but were not limited to Software Architecture, Requirements, Use-Case, Test-Case, Validation, UI Prototype documents and Use-Case, Activity, Class, System Integration, ER diagrams.
- Experience in working with RESTful-WS, XML, SOAP, Web Services, JDBC, EDI, B2B, JSF
- Experience with DoD Financial and Acquisition Systems
- Experience with Oracle Development tools (including Oracle TopLink, Oracle Application Development Framework, Oracle Application Server and JDeveloper 10g)
- Client List: SESAC, DOD, DEA, NSF, Senate Sergeant at Arms, Department of State, Spoleto Festival USA
- **Languages**: English, Vietnamese, Spanish, Mandarin

CORE COMPETENCIES: Java/J2EE Applications, iOS Applications with Cocoa Touch, Oracle ADF and JDeveloper 10.1.3, BEA WebLogic Workshop Platform

*** Platforms:** Mac OS X, Microsoft Windows® operating systems from 95 on, familiar with basic UNIX commands

*** Languages:** Java, Objective-C. Familiar with PL/SQL, C++, Pascal, ANSI Common Lisp, MatLab, XQuery, XSLT, XPath

*** Software Technologies:** Cocoa Touch**,** J2EE, Spring Framework's Data Access Object (DAO), XMLBeans, OSCache, JavaServer Pages Standard Tag Library (JSTL), JavaServer Faces (JSF), Oracle TopLink, Oracle Application Development Framework (ADF), Apache Struts 1 and 2, Web Services, Java Database Connectivity (JDBC), Java Server Pages (JSP), Enterprise Java Beans (EJB), Java Page Flows, SOAP, Custom Java Controls, Electronic Data Interchange (EDI), Maven, Adobe Flex

*** Tools:** Xcode, Oracle Development Tools (including Application Development Framework, TopLink, JDeveloper 10g, Oracle Application Server with OC4J), Toad, SVN, CVS (TortoiseCVS and WinCVS), TogetherJ, ERWin Data Modeler, XMLSpy, JIRA, Eclipse, IntelliJ, Mercury QuickTest and LoadRunner, Bugzilla, Squirrel SQL Client, Tomcat, Sun WebServer 7, Checkstyle, Subversion, Microsoft Office System (including Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Microsoft Outlook, and Microsoft Visio), Rational Rose, JasperReports, VQWiki, MediaWiki, JBoss Application Server, Adobe Flash Builder 4

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PROFESSIONAL EXPERIENCE

ICF International, Charleston, SC — February 2012 - Present

Senior Software Engineer

Client: SESAC, MINT iOS, REST, Licensee Navigator projects

DOD, EMALL project

SESAC MINT is an online works registration and assets management platform that allowed SESAC's writers and publisher to submit works for performance and service royalties. These affiliates can also view detailed earning data for all registered works with the MINT application. Ms. Hoang was the main developer for the MINT iOS application. The MINT iOS application was written in Objective-C using XCode using the Cocoa Touch platform.

REST project: Developed a RESTful-WS API that is used for mobile and web application clients to receive and send data to a royalty management platform.

Licensee Navigator is an application used internally by SESAC's royalty management staff to compute and manage the price of licensing music to different sectors.

Ms. Hoang was also the team leader and software engineer for the DOD EMALL team.

Barling Bay, Charleston, SC — September 2010 – February 2012

Senior System Engineer

Client: Department of Defense Medical Examinations Review Board (DoDMERB)

Ms. Hoang is worked on the DoDMERB web application. The Department of Defense Medical Examination Review Board is the Agency responsible for determinations of the medical qualification for applicants for appointment to a United States Service Academy, the Uniformed Services University of the Health Services, the Reserve Office Training Corps (ROTC) Programs of the United States Armed Forces, and other programs as assigned by the Assistant Secretary of Defense for Health Affairs. Using this web application, applicants can enter their medical history electronically for review by the DoDMERB staff. DoDMERB staff, admissions officers and doctors can also use the application to enter the applicant's medical exam information or share medical information that would determine an applicant's eligibility into a program.

DoDMERB Technologies used:

- **Struts 2**
- **Maven**
- **JBoss Portal**
- **XSLT**
- **XPath**
- **Stored Procedures**
- **JBoss Application Server**
- **MS SQL Server 2008 Database**

In addition to her work on the DoDMERB project, she was also part of a team that successfully launched a high profile application for the Drug Enforcement Agency (DEA). The application was built using Adobe Flex in Flash Builder 4, Spring's BlazeDS, and Hibernate with a PostgreSQL database.

STG Inc., Washington, DC — September 2008 – September 2010

Software Engineer

Client: Department of State, Office of Foreign Missions (DoS OFM)

Ms. Hoang is has worked on The Office of Foreign Missions Information System (TOMIS II). She was responsible for porting two legacy systems originally built with Oracle Forms Builder, Struts and Apache Torque into an integrated web application built using Oracle's Fusion Middleware products (Toplink, ADF, JDeveloper). In addition to the TOMIS II application, she has also worked on the OFM's eGov application that is used by all the foreign missions throughout the United States to submit applications to request various services and artifacts (tax and gas, cards, vehicle registrations and titles, driver's licenses, authorization for travel, etc.) from the DoS OFM. In addition to her core development tasks, Ms. Hoang was also the Subversion, wiki administrator and a mentor for less experienced Java Developers.

OFM eGov Technologies used:

- **Apache Struts, JDBC, JSP, JSTL –** technologies described elsewhere.
- **Apache Torque –** An object-to-relational persistence architecture used for the persistence layer

TOMIS II Technologies used:

- **Spring's DAO framework** – Spring's implementation of J2EE DAO design pattern to access and manipulate an Oracle 10g, 9i database with JDBC.
- **Oracle TopLink –** An object-to-relational persistence architecture used for the persistence layer of the TOMIS II application.
- **EJB Session beans –** Invoked by the client (User Interface) to perform CRUD operations on Java Objects enabled by TopLink (EJB Entity beans)
- **Oracle JDeveloper 10g –** An IDE used for rapid web application development with Oracle ADF, Toplink, OC4J, and JSF with an Oracle 10g database.
- **Oracle ADF –** A Java EE development framework that allows for rapid application development through the use of JSF reusable components.
- **JSF** – JavaServer Faces is a server-side user interface framework used for developing J2EE web applications
- **Apache XMLBeans -** Used to store the data object. XMLBeans provided an easy way of accessing XML data with a JavaBean like interface that had getter and setter methods.

Bearing Point, Washington, DC December 2007 – August 2008

Technology Consultant

Client: National Science Foundation (NSF)

Ms. Hoang worked as part of a team to re-design the architecture of National Science Foundation's external website (**www.nsf.gov**) to improve stability, maintainability and overall performance. She worked closely with the client to gather requirements and understand client's expectations on functionality and look-and-feel of the site.

Technologies used:

- **Spring's DAO framework** – Spring's implementation of J2EE DAO design pattern to access the database with JDBC.
- **OSCache** – Open Symphony's open-source J2EE caching framework. OSCache was used to improve system performance and stability by reducing the load on the database and processing time of the server. The caching of the pages also enhanced the user experience by reducing the overall load time of pages.
- **Custom Tag Libraries** – Custom tag libraries provides data access and other services to the JSPs.
- **JSTL** – JavaServer Pages Standard Tag library provides support for common structural tasks like conditionals, iteration, and data formatting and manipulation for JSPs.
- **JSP** – JavaServer Pages provides a fast and easy way to create and provide dynamic content.

- **Apache XMLBeans -** Used to store the data object. XMLBeans provided an easy way of accessing XML data with a JavaBean like interface that had getter and setter methods.

In addition to her core development tasks, Ms. Hoang also assisted the team with updating and creating technical documentation and UML diagrams to maintain the project's CMMI Level 3 status.

Technology Consultant

Client: Senate Sergeant at Arms

Ms. Hoang worked on a team that supported the Senate Sergeant at Arms. While there she worked on creating budgetary invoices used by all the offices within the Senate using JasperReports.

ICF International, Charleston, South Carolina October 2004 – December 2007
Software Engineer/Team Leader
Client: Department of Defense, EMall project

DoD EMall is an e-commerce site for the Department of Defense. It allows the military and other authorized customers to shop and order from over 1500 catalogs that contain over 30 million items. Ms. Hoang migrated the Manual Order Entry System (MOES) module of EMall to the BEA WebLogic Workshop Platform v8.1 and later to v.9.2. The MOES module allowed users to perform procurement transactions without going through the main shopping site. Users are able to submit transactions using DoD's *Military Standard Requisitioning and Issue Procedures* (MILSTRIP) format. MILSTRIP is an EDI message that provided a common language for the Navy, Army, Air Force etc. for requesting and supplying materials. It was designed to allow easy transmission of transactions electronically. By using the MOES module of EMall, users can process transactions in a fraction of the time it takes to go through the regular shopping experience with catalog search and cart creation.

Ms. Hoang also led the team in implementing future releases of MOES for EMall. Her key contributions include:

- Authored technical documentation to maintain team's CMMi Level 2 status.
- Building the MOES Web Application (front-end) in BEA WebLogic Workshop
    - Components used:
        - **JSP and Apache Struts**- JSPs provided the user with the forms and pages to create and transmit MILSTRIP transactions. The JSPs were implemented using BEA's NetUI and EMall's Custom tag libraries. The data was encapsulated using JavaBeans and Struts actions were used to receive and process the bean from one JSP to the next.
        - **Struts Validation**-Because of the strict EDI format of MILSTRIP transactions, Struts Validation was heavily used to ensure successful transaction processing.
        - **XMLBeans**-Used to store the data object. XMLBeans provided an easy way of accessing XML data with a JavaBean like interface that had getter and setter methods. The XQuery language was used for translating XMLBeans into the MILSTRIP format and vice versa. The XML Schemas were created using XMLSpy.
        - **JDBC and EJB**-JDBC was used inside EJBs for persisting data to an Oracle 10g database.
- Used BEA WebLogic Integration to develop the MOES Integration application
    - Components used:
        - **Business Process Work Flows**
        - **Email Control**
        - **Web Service Control** - used to call EMall Business Partners published Web Services.
        - **HTTP Control** – HTTP/s GET and POST operations used to communicate with business partners
        - **Database Control/EJBs** – persistence, stored procedure calls

- **Format Builder** – Create MFL file used for data transformations for MILSTRIP transactions
- **Data Transformation Control** – Perform mapping and conversion of data from XML to MILSTRIP format using XQuery.
- **File Control** – Used for transmission and manipulation of MILSTRIP files to EMall's business partners; built custom SFTP control for file transfer.
- **Event Generator** – Used to drive a process based on events like time, file arrivals, database inserts, etc.

EDUCATION AND CREDENTIALS

Bachelor of Science Degree in Computer Science
Bachelor of Science Degree in Mathematics
COLLEGE OF CHARLESTON – CHARLESTON, SC

PROFESSIONAL TRAINING

iOS Development, 2014 (7-day training course)
BEA WebLogic Integration, 2005 (35-hr training course)
Service Oriented Computing, Graduate Course College of Charleston 2005
Oracle Application Development Framework and JDeveloper 10g, 2009 (40-hr training course)

LANGUAGES

English: Native Language
Vietnamese: Proficient in conversational speaking, Proficient in Writing
Spanish: 4+ years of education
Mandarin: 1.5 years of education

CLEARANCE

Top Secret Clearance, July 2009-Present
Secret Clearance with IT-2 Certification of Public Trust, August 2005
US Citizen

REFERENCES

Available Upon Request