## HsiaoHan (Heina) Chang

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# **Software Engineer**

Full stack software engineer with strong trouble-shooting, problem solving, and detail-oriented skills with 12+ years experience developing applications. At this point in my career, I am looking to learn new IT technology, gain more experience in front-end or mobile development and expand upon my experience developing business-oriented projects. Learning something new every day and working with motivated and skilled team members is a must for my new work environment.

	Windows, UNIX/Linux/zLinux, IBM RAD/websphere, Tomcat, Eclipse, IntelliJ, SVN, Git, Maven, Gradle, Solr
	Java, Spring, Javascript, Shell Script, UML, XML, Oracle PL/SQL, C/C++, thymeleaf, AngularJs, MyBatis, MEAN, ReactJS
Development	OOAD, Agile development methodology, N-tier, SOA

# **Work Experience**

### Software Engineer

4/2012 - Current

Nintendo of America, Redmond/WA

# Project 1:

Implemented an account-system web service using CXF, MyBatis (Oracle), Spring, dropwizard metrics and so on open source library.

#### Proiect 2:

Designed and Implemented an UI web application to support customer service representative using bootstrap, thymeleaf, Spring MVC, Spring Security and Cassandra. I designed and implemented the core of this application to support complex authorizes requirements by using annotation and AOP.

#### Proiect 3:

Designed and Implemented an event driven app to process data from Oracle AQ(Advanced Queuing), upload images to Amazon S3 and also create Restful web services to interact with AWS SQS and SWF and Solr. Create standalone WireMock server to handle http request with mocking response.

#### Project 4:

At the downtime, I learned Angularjs and build a dashboard to show deployed versions of applications in each environments by using \$http service to create a simple client side only application. After that, covert it to MEAN stack to resolve CORS issue and support more application without code changes by using MongoDB.

#### Consultant

4/2011 - 4/2012

Expeditors Seattle/WA

Design and develop product sku management applications to support custom admission activities. Implement a new JSF application using Java, Spring, hibernate, wsimport, JSF, tomcat and DB2. And

create application components with dataset controller, DAO, service layer to add some enhancement to an existing custom.

# Project 1:

Designed and implemented a web service client using JSF, Rich faces, Hibernate, DB2, tomcat and java. My application runs based on a quartz scheduler. It retrieves product sku data from web service calls and converts it to a fixed format text files to feed the other Custom application. This app also have UI to help support team to add, modify, delete company info and monitor the daily activity and also provides traffic simulator and tester.

### Software Engineer

10/2004 - 3/2011

Fidelity Investment Merrimack/NH

Design and develop high volume risk management applications to facilitate margin trading activities. Use UML class diagram to describe the structure of my servers and sequence diagram to explain how objects communicate to each other. Implement multithreaded server using Java J2SE, Spring framework, ibatis, JMS MQ, WSDL, Eclipse/RAD, and oracle pl/sql. Deploy application servers using ANT to UNIX machines and use jython to do configuration on IBM Websphere application server. Build Web Server service (proxy) using JAVA, WSDL, XML, Axis2 SOAP, JAX-WS, JAX-RS Restful web service and Jersey, JAXB, and JDBC connection pool data source on RAD 6.

#### Project 1:

Used REST web service and Jersey to create a web server to provide Create, read, update and delete operations. Run on tomcat application server.

## Project 2:

Designed and implemented a J2SE rule server running on Solaris 10. Used Spring framework to handle xml configuration file and controlled dependency. For database access, we used ibatis for oracle store procedures call. My server also receives console command via RMI. This server is message driven by a JMS MQ listener container. The rules are defined in drl files. All the accounts are evaluated by creating a statefulsession as working memory and fire all rules to activate the rules in drool rule engine.

## Project 3:

Designed and developed a whatif scenarios service with complex business logic for a web application. Risk management team utilizes this tool to reduce brokerage risk and loss. Created WSDL with operations and schema definitions and used JAX-WS/Axis2 soap engine to generate web service for an adobe flex client. Defined/configured Oracle/DB2 datasources, JMS queue connection factory and JNDI namespace in IBM Websphere 6 via console and jython.

# Project 4:

Developed a J2SE multithreaded Java server run on zLinux. Applied object-oriented design patterns such as singleton, abstract factory etc. Used JAVA JMS API to create Queue Connection Factory and Queue Destination. MQ listener receives messages and distributes messages to consumers and producers to handle requests. Utilized zLinux to invoke DB2 store procedures via HiperSockets to increase performance. Also used TPTP profiling tool to monitor memory and CPU usage and identify methods with high execution time.

# Project 5:

Created VPD (Virtual Private Database) on Oracle to support multiple companies access to our database and assure that each company could only see their own data. In order to make our existing applications support multiple companies, we created a security policy function then apply the policy to

the company code column on all the tables and create login trigger to enforce security policy.

### Project 6

Created a brand-new J2EE Web Service run on Websphere 5.1. We first defined the web services in WSDL and input/output request message schema in XSD. Then used Axis 1.2 soap engine to generate web service proxy. Client and web service (proxy) communicate via XML soap messages. JAX-RPC remote procedure call is transmitted as soap messages over http. In the web service, we executed DB2 store procedure calls using JDBC by websphere connection pool.

#### Tech. intern

7/2003 – 6/2004

Fidelity Investment, Boston, MA

Responsible for Application and database development on unix using Client Server structure. Converting business oriented applications from Sybase to Oracle 9i uses C++ and Oracle PL/SQL stored procedure. Also do a lot of c-shell scripts, cron jobs, SQL Loader, and SCCS for source control.

## Education

6/2003 University Of Massachusetts Lowell, Lowell, MA

Master degree of Computer Science.

6/2000 University Of Massachusetts Lowell, Lowell, MA

Computer Science Pre-Master certificate.

7/1998 TUNG-HAI UNIVERSITY, Taichung, Taiwan

Bachelor of Science in Sociology

## Certificate

SCJP1.4 Sun Certified Programmer for JAVA 1.4 platform

ORACLE 8i Certified Professional DBA