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DAVID LEE

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WORK EXPERIENCE

IT Specialist(APPSW)

DFAS Cleveland - Cleveland, OH
September 2017 to Present

Develop the Application on the SpringFramework 5

• Designed and developed the new Application for DFAS
• New Machine Learning Algorithm (Dijkstra's algorithm)
• Performance and Scalable Architecture using big data(storm and kafka) , nosql(cassandra) and SOLR
• J2EE and SpringFramework 5.0 Spring boots 2.0
• Oracle / MySQL
• JDK 8 , stream , lamda and concurrent
• Storm , Spark and Kafka
• Cassandra and Couchbase
• Solr
• Restful service and Json, Xml parser

Contractor (Sr S/W Engineer and Developer)

Equinix Data Center - San Jose, CA
May 2017 to August 2017

Develop the Solr Search Data Framework with SpringFramework

Contractor (Sr S/W Engineer and Developer)

Infosys - San Jose, CA
January 2017 to May 2017

Contractor (Sr S/W Engineer and Developer)

Walmart Labs - Sunnyvale, CA
December 2015 to November 2016

System Analysist, Sr Software Engineer & Developer)
● Designed and developed the new LMS(last mile scheduling) and LMDE(last mile delivery)
◦ LMS for the new environment

◦ New Machine Learning Algorithm (Dijkstra's algorithm)
◦ Performance and Scalable Architecture using bigdata(storm and kafka) , nonsql(cassandra) and SOLR

● Maintained and enhanced the function for the LMS , LMDE
◦ J2EE and SpringFramework 4.0 (middleware restful API CXF)
◦ UI
◦ oracle
● Technique: LMS and LMDE deign
◦ JDK 8 , stream , lamda and concurrent
◦ Spring 4.2, CXF Restful
◦ Storm , spark and kafka
◦ Cassandra and Couchbase
◦ Solr and elastic search
◦ Restful service and Json, Xml parser
◦ Angularjs , Reactjs and jquery
◦ Google MAP api and D3 api
◦ Android app

Contractor (Sr Software Engineer & Developer)

AT&T AdWorks Inc - San Francisco, CA
May 2014 to September 2015

Designed and developed the Paas for the hadoop frameworks and service
● Maintained and enhanced the function
◦ AngularJS (with bootstrap) and Grails 3.0
◦ J2EE and SpringFramework 4.0 (middleware restful API CXF)
◦ Ambari (jetty imbedded server, python, ember, handle bar, angular js)
◦ Hue (python, django and mako file)
◦ Oozie Console (extjs)
● Technique: GeoLocation and Demographic data deign
◦ Data feed and hadoop solr
◦ Hadoop: Howtonworks HDP 1.3,2.1,2.2
◦ Hadoop, yarn, java MapReducer, hive, pig, oozie, hbase
◦ Storm topology
◦ Python numpy, scipy and matplotlib
◦ Restful service and couchbase
◦ UI: angularJS .. leaflet D3 visualization

Contractor (Sr Software Engineer)

Visa Inc - Foster, CA
January 2014 to April 2014

Analyzed the Visa backend system and Prepared the security management issues
● Developed the system for monitoring the system error in the Visa Security Architecture
● Technique: SpringFramework Core, integration, MVC, Security, HTML, XHTML, CSS, JavaScript , DOM Script GWT
EXTJS JQUERY, JSF, EJB3, Hibernate, Oracle, MySQL, Meta, Workflow, Object Modeling, XML, Jboss, tsServer, Tomcat,
Eclipse, CVS, Agile Methodology, Ant, Maven, JAAS, PKI, HTTPS, Secure Socket, Encrypt/Decrypt, Lucene, RestFul
Service(CXF), Web Service(CXF), JMS (IBM MQ), Maven Ant, Ruby and Railes, Mongo, SCMP, hadoop map/reduce

Principal Engineer

Aurea software Inc
October 2011 to November 2013

Developed the Savvion bpm System framework
● Developed the bpm with Rule engine (Drooler 5.4)
● Developed the multi session management system on the web
● Developed the portal using Ruby and Rails extjs 4.2 and jquery web using restful webservices
● Developed the native library interface system using Rococoa, JNA and bash script for cross OS platform (Mac osx, window, linux): mouse capture, key board capture, screen capture, wecam capture, process info form active window
● Research project: develop the mobile app in the android using phonegap(cordova) and jquery mobile, extjs mobile
● Research project: develop the face recognition system use opencl and PHP, MySQL
● Developed the portal using Develop the Liferay, xmpp, odata, git
● Amazon AWS: S3, SQS, RDS API
● Utilized RDS cloud database instance for scalable storage
● Developed the Workflow system on the Spring framework and EJB3, hibernate.
● Developed the bpm frame which is base on the spring framework, MVC and Ext js, GWT JQUERY.
● Developed in the SpringFramework and VMWare Gemfire, tc Server, Rabbit MQ , Active MQ and Camel
● Developed in the Spring Integration for JAX-WS, JAX- RS, MVC, Webflow, JPA, Hibernate
● Developed in the Spring MVC, Webflow, Restful and Jsf , Struts, Velocity, FreeMaker web application
● Developed the Savvion Studio Eclipse Plugin using SWT and JFACE, GEF
● Technique: SpringFramework Core, integration, MVC Webflow, Security, Groovy and Grails, GIT, Gradle, Alfresco, HTML, XHTML, CSS, JavaScript , DOM Script GWT EXTJS JQUERY, JSF, EJB3, Hibernate, Oracle, MySQL, Saas, Meta, Workflow, Object Modeling, XML, Jboss, Seam Framework, Tomcat, Eclipse, CVS, Agile Methodology, Ant, Maven, JAAS, PKI, HTTPS, Secure Socket, Encrypt/Decrypt, Heritrix, Lucene, jForum, BIRT, JFreechart, RestFul Service(RestEasy, Jersey), Web Service(Axis), JMS (Durable Subscriber), Maven Ant, Ruby and Railes

Contractor

Trintech Inc - Campbell, CA
January 2011 to July 2011

Developed the Financial Reporting System framework
◦ Developed Financial Reporting System frame for the XBRL
◦ Developed the Workflow system on the Spring framework and EJB3, hibernate.
◦ Developed the FRS frame which is base on the spring framework, JSF and Ext js, GWT JQUERY.
◦ Redesigned the Visualization using GWT and Ext js
◦ Developed the portal using Ruby and Rails
● Technique: SpringFramework Core, integration, MVC Webflow, Security, Groovy and Grails, GIT, Gradle, Alfresco, HTML, XHTML, CSS, JavaScript , DOM Script GWT EXTJS JQUERY, JSF, EJB3, Hibernate, Oracle, MySQL, Saas, Meta, Workflow, Object Modeling, XML, Jboss, Seam Framework, Tomcat, Eclipse, CVS, Agile Methodology, Ant, Maven, JAAS, PKI, HTTPS, Secure Socket, Encrypt/Decrypt, Heritrix, Lucene, jForum, BIRT, JFreechart, RestFul Service(RestEasy, Jersey), Web Service(Axis), JMS (Durable Subscriber), Maven Ant

Contractor

GlobalStar - Milpitas, CA
October 2010 to December 2010

Developed the SOA Framework
◦ Developed SOA frame for the findme.spot.com
◦ SOA frame is base on the spring framework, EJB3 and hibernate, JSF 2.0, Restful (Jergy and RestEasy).
◦ Redesign the Middleware(Active MQ) using spring-jms (Backoffice) and Webservice (ws, rs)
◦ Deploy the Durable Topic instead of Rounding Que system.
◦ Redesign using the Meta Class for the Multilayer and N-tier.
● Technique: HTML, XHTML, CSS, JavaScript , DOM Script GWT EXTJS JQUERY, JSF, EJB3, Hibernate, Oracle, MySQL, Saas, Meta, Workflow, Object Modeling, XML, Jboss, Seam Framework, Tomcat, Eclipse, CVS, Agile Methodology, Ant, Maven, JAAS, PKI, HTTPS, Secure Socket, Encrypt/Decrypt, Heritrix, Lucene, jForum, BIRT, JFreechart, RestFul Service(RestEasy, Jersey), Web Service(Axis), JMS (Durable Subscriber), Maven Ant

Contractor

BMC Software - San Jose, CA
August 2010 to October 2010

Developed the Product Application(ITM) Framework
◦ Migration from EJB2 to EJB3; Developed the Multi Language/Multi Currency system for ITM
◦ ITM is one of product system designed on the J2EE platform.
◦ Meta Class for the Multilayer and N-tier is created generically.
◦ Modify all the generic logic for the Multi language / Multi currency
● Technique: HTML, XHTML, CSS, JavaScript , DOM Script GWT EXTJS JQUERY Strut, EJB3, Hibernate, Oracle, MySQL, Saas, Meta, Workflow, Object Modeling, XML, Jboss, Seam Framework, Tomcat, Eclipse, CVS, Agile Methodology, Ant, Maven, JAAS, PKI, HTTPS, Secure Socket, Encrypt/Decrypt, JFreechart, Restful Service(Resteasy, Jersey), Web Service(Axis), JMS (Durable Subscriber), Maven Ant

Lead. Software Engineer

IEIEDU - San Jose, CA
November 2008 to July 2010

Developed the Social Media Platform
◦ Developed the Security Manager (Deploy the JAAS, PKI, Rule based Access Control system) oAuth
◦ Developed the Account Manager, Profile
◦ System is designed by the meta template concept. So unlimited customer can be designed their own systems on the web as a clouding system.
◦ Link to blogger, and Facebook, Twitter using api
◦ Developed the Blog System
◦ Developed the Social Net System
◦ Developed the Photo and Slider System
◦ Developed the Video Player System
◦ Developed the Mail System and Contact Management System.
◦ Developed the Calendar and Event Management System
● Developed the Application Generator
◦ Developed the Meta Object Workflow Engine.
◦ Developed the Meta Object Application Generator.
◦ Developed the Meta Object Report Generator (ETL).
◦ Developed the Meta Object Dashboard (graphic chart).
◦ Develop the CRM, ERP, SCM, sample application based on the application generator
● Developed the Web Builder Engine
◦ Developed the Web Builder System.
◦ Developed the Theme and Template Management System.
◦ CSS, JavaScript, Rich Faces
◦ GWT1.7, GXT2.0, EXTJS 3.0, YahooUI, JQUERY
● Developed the Product Catalog Engine
◦ Developed the Product Catalog System.
◦ Develop the catalog component by the Ajax4jsf
● Technique: HTML, XHTML, CSS, JavaScript , DOM Script GWT EXTJS JQUERY JSF, EJB3, Hibernate, Oracle, MySQL, Saas, Meta, Workflow, Object Modeling, XML, Jboss, Seam Framework, Tomcat, Eclipse, CVS, Agile Methodology, Ant, Maven, JAAS, PKI, HTTPS, Secure Socket, Encrypt/Decrypt, Heritrix, Lucene, jForum, BIRT, JFreechart

Lead. Software Engineer

Blue Roads - San Mateo, CA
September 2008 to November 2008

Developed the Blue Roads Meta SAAS System on the Seam Framework
◦ This system is developed by the meta design concepts. To minimize the develop cycle and maintenance efforts, system

manage the backend and front end by the Meta xml configuration.

◦ Modeling the data and object for the meta concept design.

◦ System implements use the open source technique. Backend is EJB3 and hibernate, oracle data base.

◦ Front end use the Dojo, EXTJS, JQUERY, JMAKI framework and JSF. The new widget is developed by Dojo is integrated by the JMAKI (java scripts and the JSON is glued).

◦ JSF bean action lifecycle generically call the handler to build up the JSON string. This JSON string converted from collection data get from the EJB3 generic code.

◦ Technique: HTML, HXTML, CSS, JavaScript , DOM Script Dojo, EXTJS, JQUERY Seam framework and JSF, EJB3, Hibernate, Oracle, SAAS, Meta, Workflow, Object Modeling, XML, JBOSS, Tomcat, Eclipse, Perforce, Agile Methodology, Ant, Maven, Seam, Drool, jBPM, JAAS, PKI, HTTPS, Secure Socket, Encrypt/Decrypt

Lead. Software Engineer

Northrop Grumman - San Mateo, CA

February 2005 to August 2008

Developed the Next Generation Postal One System in the USPS (2/2005 - 8/2008)

◦ Concept: Postal One is too complex and has many platform and framework. So minimize the maintenance effort and maximize the agilities. Prepare the new SOA framework including BMP and rule engine.

◦ Architecture: SOA (Service Oriented Architecture) 1. N-tier, 2. MVC, 3.Thin Client View by Ajax and Dojo widget, Layered Engine(Workflow Engine and Business Rule Engine) in the controller. ORM tools and Ejb Container. 4.Ajax (Dojo, EXTJS, JQUERY SWT, GWT) + Spring MVC, Struts, JSF + Service(SOA) + EJB3 session bean or Webservice (RPC, REST)+ BMP or Hibernate + Oracle.

◦ Modeling the data and object for the meta concept.

◦ Length of Project: 3 Years.

Sr. java developer and Assistant architecture

Northrop Grumman

February 2005 to August 2008

HTML, HXTML, CSS, JavaScript , DOM Script, Ajax (Dojo, EXTJS JQUERY) , Spring MVC, Struts, JSF, Service(SOA) , EJB2, EJB3 session bean, Webservice (JAX-RPC, JAX-P, JAX-B, RPC, REST), BMP, Hibernate , Oracle , Workflow, Object Modeling, XML , SAP, JCO , IReport, Jasper Report , Jboss, WebSphere, MQ Series, Rad6, Eclipse, CVS, Agile Methodology, Ant, Maven, Opensource (velocity.FreeMarker, Jamon), JMeter, JAAS, PKI, HTTPS, Secure Socket, Encrypt/Decrypt, Cold Fusion

● Develop and Maintain the Current Postal One System used by over 100,000 companies (2/2005 - 8/2008.)

◦ Postal One is designed by J2EE and Oracle. Business Components is used CMP, BMP and Stateless Session Bean, MQ Series. Web Components is used the Struts framework and supported by Spring framework and Hibernate 2 and 3. and Cold Fusion Application

◦ Developed the web service using SOAP, AXIS.REST and design and develop the Oracle package.

◦ Design the new backend framework which is integrate the Spring Framework, Hibernate 3 and Open Workflow and front end framework which is integrated Struts, Java face, Portlet and cocoon, Slide

◦ Test Automation using the JMeter

◦ Technique: HTML, HXTML, CSS, JavaScript , DOM Script , JSP, TILE, Spring MVC, EJB, JMS(MQ Series), Webservice (SOAP, AXIS, JAX-RPC, JAX-P, JAX-B, RPC, REST), Oracle , PL/SQL, WebSphere, WebLogic, Rad6, Ant, Cold Fusion

● Develop and Maintain the MailDat System and Dashboard (2/2005 - 8/2008)

◦ Postal One communicates with client company through the Mail Dat standard.

◦ Clients send the mail service information to Postal One.

◦ Postal one servers handle this multi-files in the muti-threading upload file engine.

◦ For the performance, upload file engine designed by multi stages.

◦ Each stage start the new thread for save the raw files into the DB, call the package in ht oracle and validate the fee, save in the postal one db.

◦ help implement mail*dat and integrated an open source into the client environment

◦ Develop and maintain the Dot*net Dashboard System

◦ Technique: HTML, HXTML, CSS, JavaScript , DOM Script, Eclipse RCP (JFace, SWT), HttpClient, Multi-thread Java, Webservice (SOAP, AXIS, JAX-RPC, JAX-P, JAX-B, RPC, REST), Oracle, PL/SQL, WebSphere, Rad6, Ant, Dot*Net, C#

Lead. Software Engineer

Samsung Data System - San Jose, CA
April 2004 to January 2005

Developed the BPM Engine and Application
◦ Design and develop the BPM engine for Business application using Struts framework and EJB business Components technology. This architecture enhances the develop cycle and maintenance efforts and good performance.
◦ Data and Business Object Modeling is implemented in the XML configuration. Data and business object works by the Meta technology. This design reduces the number of business object to implements. And workflow function is defined in the database. This workflow controls the business flow and controls the authorization through the access level.
◦ This workflow supports the WFMC standards and XPDL to interface the other BPM engine. This BPM engine interface with SAP and BW by the BAPI coding, JCO class.
◦ Technique: HTML, HXTML, CSS, JavaScript , DOM Script , JSP, TILE, STRUTS, EJB, Webservice (SOAP, AXIS, RPC, REST), Oracle, PL/SQL, BMP, Workflow, Object Modeling, XML , SAP, JCO, WebLogic

Lead Software Engineer

ALSTOM, Inc - San Jose, CA
March 2001 to September 2003

EMMS (Energy Market Management System) on the J2EE Platform
◦ This project focuses on the migration from a legacy system to a J2EE-based system. The system is composed of several sub-systems: XML Market Interface system, Market Job Scheduler System, XML Market Bidding System, and Rule-Based Settlement System. Each sub-system can communicate each other by the XML brokers.
◦ Container Managed Persistence was mainly used while Bean Managed Persistence was used only for special cases.
◦ Message Driven Bean was used for communicating with independent agents such as Crawl Robot and Job Scheduler system.
◦ Presentation Layer was designed using the Struts so that the configuration file can control the screen workflow.
◦ For the GUI Look and Feel, the Swing was used.
◦ Presentation data prepared in XML format are converted using XSLT and pushed to the browser. The system was deployed onto the Web Logic v. 6.0 and migrated to Web Logic v. 8.0 with Oracle v. 9.2.
◦ Technique: JSP, Swing, EJB, Websrvice (SOAP, AXIS, RPC, REST), Oracle, PL/SQL, Object Modeling, XML, XSLT, Weblogic, Rule-Engine, Workflow, Crawaler
● Crawl Robot in the Internet and VPN
◦ Designed and developed a Crawl Robot and Data Management System in the Rule based Settlement System. The system is composed of two parts, data collection system and data warehouse system. The data collection system collects the data from the public or private secure sites. The data warehouse system stores and converts data in any type of formats. Each customer configures different data model and different data base system at the time of configuration. The Data collection system is implemented by authorization key certification, secure socket layer, and networking. The Data warehousing system is implemented using XML Schema and Multi-Thread technology.
◦ Technique: JSP, Swing, Multi-Thread, Oracle, PL/SQL, Object Modeling, XML , XSLT, Weblogic, Rule-Engine, Workflow, Crawler
● Market Trading S/W Using SWING GUI
◦ Design & Develop the Energy Trading Software in the distribute environment. Trading system is designed by CORBA ORBIX Server and Swing Clients. Develop by the IBM's Visual age 3.02 tools, which has the IDL develop environment and powerful GUI tools for swing.
◦ Technique: JSP, Swing, Multi-Thread, Oracle, PL/SQL, Object Modeling, XML , XSLT, Weblogic, Rule-Engine, Workflow, Crawler
● XML Protocol Conversion System
◦ Develop the AXIS (Alstom XML Interface System) for handling energy deployment signals issued as XML instructions from Central Market.

◦ Technique: JSP, SWING, Multi-Thread, Oracle, PL/SQL, Object Modeling, XML , XSLT, Weblogic, Rule-Engine, Workflow, Crawler

● Real-Time Alarm System

◦ Developed a Real-Time Alarm System which manages the risks in the physical and financial issues. Customer can dynamically configure the hundreds of risk rules. Server monitors each alarm condition. If data hit the thresholds, system notifies the customer. The system is designed using multi-threading architecture.

◦ Technique: JSP, SWING , Multi-Thread, Oracle, PL/SQL, Object Modeling, XML , XSLT, Weblogic, Rule-Engine, Workflow, Crawler

● Energy Market Trading Software

◦ Developed a Deal Maker module, a Real Time Trading Application which manages physical trades for energy and ancillary services with the trading counter parties as well as the Independent System Operator (ISO). This System is developed by SWING GUI.

◦ Technique: JSP, SWING, Multi-Thread, Oracle, PL/SQL, Object Modeling, XML , XSLT, Weblogic, Rule-Engine, Workflow, Crawler

● XML Market Protocol

◦ Developed a Market Management System comprised three parts, communication, scheduling, and bidding. The communication system manages XML files used for communicating with the ISO. The scheduling system creates generation schedules by economic dispatch algorithms. The bidding system creates a price curve for a generator by the market rule. The system handles multi-part of message and implements different communication tools such as soap, listener, and remote procedure call.

◦ Technique: JSP, Multi-Thread, Oracle, PL/SQL, Object Modeling, XML , XSLT, Weblogic, Rule-Engine, Workflow, Crawler

Lead Software Engineer

Killer Biz, Inc - Santa Clara, CA
August 1999 to December 2000

Comparative B-to-B System on the Internet

◦ Developed a Business-to-Business system that can compare prices by the product and manufacturers. The product item data are converted in XML format and compared by several elements defined in an XML file. Developed by JSP, Servlet and java bean on the tomcat web server, back end is Oracle, MS SQL database.

◦ Technique: ASP, Multi-Thread, MSSQL, Object Modeling, XML , XSLT, ASP, VBScript, COM+ , IIS server

● Classified Service on the Internet

◦ Developed a classified system using the ASP, VBScript, COM+ on the IIS server.

◦ Technique: ASP, VBScript, COM+ , IIS server

● Crawl Robot System on the Internet

◦ Developed a system that crawls various Internet sites to gather specified item information and sorts them in a specific order. This robot gathers URLs by the industry and company. For information of the whole action site, the robot crawls through the action site, downloads items and displays the items and link information. Developed by the Java Socket programming.

◦ Technique: ASP, VBScript, COM+ , IIS server, Multi-Thread, Object Modeling, XML , XSLT, Crawler

● XML DBMS

◦ Developed a XML Data Management System that manages, stores, retrieves, updates data on the middle ware and manages the work as a transaction. Participated in architecture design and developed core logic. Defined DB schemas in an XML file. The system analyzes pre-defined relations and manages the data by the rule. Three types of objects, index, data, and array were defined to handle multiplicity and reduce number of tables. Platform is java web server and servlet language and java help class, MS SQL database.

◦ Technique: servlet, Multi-Thread, MS SQL, Object Modeling, XML

Lead Software Engineer

Next Point, Inc - San Jose, CA
March 1998 to May 1999

JAVA Object Workflow
◦ Developed an Object Workflow System by the WFMC standard specification on the CORBA platform. Entity is composed of Process, Activity, User, Role, Log and Execute. GUI was written using Java applet.

Lead Software Engineer

KTNET, Inc - Seoul, KR
August 1990 to February 1998

Support the national strategic network (Trade network, Custom network, Logistics) design
● Support the long term plan for the trade network in Korea
● Electronic Data Interchange (EDI) Translation and Mapping
◦ Developed an EDI translation and mapping software for banking (credit, debit notification), customs (legal documents), shipping company (manifest) and airline company (airway bill).
● ERP (Smart Stream Finance) Packages
◦ Developed, and implemented the ERP (Enterprise Resource Planning: Smart Stream) System and provided customer training. The Smart Stream system includes general ledger, account receivable, account payable, payment and tax.
● Internet Service
◦ Developed and implemented the Internet service.
● IBM ESA-390 CobolII IBM DB/DC CICS DLI DB2

Software Engineer/DBA

LG EDS, Inc - Seoul, KR
September 1988 to July 1990

Administered IBM DB.
● IBM ESA-390 Cobol IBM DB/DC CICS DLI DB2

Software Engineer

Samsung, Inc - Seoul, KR
June 1986 to September 1988

Management Information System Product
● Developed a Management Information System product.
● IBM ESA-370 Cobol IBM DB/DC CICS DLI DB2

EDUCATION

BS in Nuclear Engineering

Han Yang University - Seoul, KR
February 1985

SKILLS

- **ORACLE (10+ years)**
- **XML (10+ years)**
- **jQuery (10+ years)**
- **Java (20 Year) (10+ years)**

- **Cassandra (4 years)**
- **Kafka (4 years)**
- **Spring (10+ years)**
- **BigData (6 years)**
- **Angualr JS (4 years)**
- **Node JS (6 years)**
- **JavaScript (10+ years)**
- **Python (4 years)**
- **Solr (4 years)**

ADDITIONAL INFORMATION

COMPUTER SKILLS
- Operating System: Window, UNIX, LINUX (cent OS), Android
- Language: Java 8 (Stream lamda concurrent), javascript(object, jquery, angualrjs, reactjs), ruby,python
- Bigdata: Hadoop(HDFS ,Map reducer),Storm(Topology),Spark
- Database: Cassandra, Couchbase, Mongo, Hbase,Oracle, MySQL, MS SQL, DB2
- Middleware Server: Tomcat, tcServer, Glassfish, JBOSS, WEBSPHERE, WEBLOGIC, IIS
- UML/OOP: Rational Rose
- IDE: WSAD, Eclipse, NetBean, IntelliJ, Ant, Maven, IVY, GRADLE
- Spring framework(v2.0 -v 4.2), core integration data(MVC, Rest, JMS)
- Web Technology - HTML5, XHTML, CSS3, JavaScript, DOM Script, JSP, Spring MVC, Spring Webflow, STRUT, JSF, XML, XSLT, ASP.NET, VBScript, Perl
- Business Component - EJB2, EJB3,JCP
- WebService: SOAP, JAX-RPC, JAX-P, JAX-B, Axis(JAX-WS), RestFul (JAX-RS), restful webservices
- GUI: SWING, AJAX: Dojo, EXTJS, JQUERY, RCP, SWT, GWT,Angular.js, D3, Leaflet,ReactJS
- ORM TOOL: Hibernate, iBait, Ruby Rails4
- Methodology: Agile, RUP, Perforce, CVS, PVCS, Subversion
- Open source: WfOpen, iReport, Lucene,SOLR, Velocity, FreeMarker, Jamon, Seam, jBPM, Drooler, iText, Liferay, xmpp, odata, git
- SOA: Websevice, jBPM, Drool, J2ee, Hibernate, Web2 (Ajax: jquery, extjs, angularjs,reactjs), javascript
- Security: JAAS, PKI, HTTPS, Secure Socket, Encrypt/Decrypt, oAuth2,IAM
- Mobile: android app, cordova (phone gap), extjs mobile and jquery mobile