**Jason Liang**

**Senior Software Engineer**

20+ years of full development lifecycle experience in large scale projects from scoping, planning, conception, design and implementation to deployment.

**Areas of Expertise**

|  |  |  |
| --- | --- | --- |
| * *Software development* | * *Software architect* | * *Analysis and optimization* |

**TECHNICAL SKILLS**

* 20+ years’ experience taking a leading role in designing and implementation of N-tier distributed cloud based software solutions, REST API for high availability and scalability
* Strong skills in writing efficient code and understanding of algorithms, data structures, mathematical modeling, probability and statistics
* Hands-on expertise in end-to-end (design, development, testing and implementation) including unit testing,test automation, BDD, static code analysis, deployment etc.
* Solid experience with web technologies and frameworks such as React, jQuery, HTML5
* Experience of professional software development and message system with JMS, ActiveMQ, MQTT, Spring, Tomcat, Jetty
* Experience developing with design patterns including OOP, MVC/MVVM,SOLID
* Experience with SOAP, RESTful Web Services, REST/JSON and SOAP/XML, Microservices service-oriented architecture (SOA) and Cloud technology such as AWS, AZURE
* Experience in communicating with clients, other technical teams, working with Stakeholders to collect requirements, product features, technical designs.
* 15+ years’ experience with RDBMS database, design, programming, Data modeling

|  |  |
| --- | --- |
| * + **Platforms:** Windows, UNIX, Linux | * + **Languages:** Java, JavaScript, Python, C# |

**CAREER HISTORY**

**Senior Software Developer**

Element Fleet Management - Mississauga,ON, Canada 2020/01 - 2020/06

Developed back-end services for large scale commercial workflow systems. Developed various services to manage the order workflow from rfq,quote,order,purchase-order, approve, and task assignment functions. The application is a reactive platform and scales well to cloud.

Key technologies: Java , Spring framework, Javascript, CSS3, Python,Vertex, Hazelcast, Junit, JMS, ActiveMQ, MQTT, Hibernate, PostgreSQL, JIRA, Graylog, Git, DevOps, Maven, AWS cloud

**Senior Web Developer** 2017/05- 2020/01

Citi - Mississauga, ON, Canada

Developed various types of back-end services, such as entitlement service, data service, authorization service and etc.

Utilized various techniques to ensure code quality and quick iteration of release cycles, such as jest framework for frontend and junit for backend.

Developed a customized component with React.js in HTML. including search and filter functions for different data sources, for interacting with clients and the display various contents including text financial data chart, picture, audio and etc. Optimize the responsive using buffer/paging techniques.

Introduced techniques to ensure the security of web applications,such as security filter, encode/decode data, web server configuration, and upgrading Java and Jquery libraries.

Programmed security layer to protect website from various attacks, and the application to be 7\*24 available.

Optimized the performance of Web application by analyzing the log of request/response, optimizing the code, adjusting HTTP Headers, utilizing cache mechanism, and tuning JVM on production servers.

Key Technologies: Java, Javascript, React.js, Marklogic, Oracle, Angular,Node.js, Azure LESS,HTML5,Spring, Boot,Akamai Cache, Gemfire, DevOps,JIRA,GIT,BITBUCKET,Weblogic, MAVEN,ANT,JENKINS,Webpack,TEAMCITY,UDEPLOY

**Senior Software Developer**  2016/07 – 2017/01

TD Bank Financial Group, Canada

Defined development tasks,design the architecture, and review with BA and stakeholders, and reported status of development tasks

Worked with clients to create strategies and frameworks

Define and maintain architecture and technology standards for applications, middleware, and databases

Designed and implemented IAM (Identity Access Management) system. It is designed to handle requests to Non People IDs, collect, classify, and enforce policy to all existing IDs to different operating systems, Database instances and mainframes. The system also managed the ownership of each ID.

Implemented batch scheduling functionality to auto-provision process.

Key Technologies: MVC, jQuery, Oracle 12c, JavaScript, BootStrap, GIT,Angular, Azure

**Senior Software Developer** 2015/11 – 2016/07

HRWARE Inc., Canada

Moved applications to the AZURE Cloud platform. Built Cloud Native applications and integrate with existing applications. The key challenge is to scale up and speed up the online application. I used several techniques to achieve this goal. Developed tools to analyze log files of IIS and JMeter, investigated the transactions to solve concurrency transaction problems. I also developed an encryption /decryption function for the Online application.

Key Technologies: .NET, Hibernate, ETL, MVC, Azure SQL Server, Antlr 4, jQuery, AngularJS,Azure

**Senior Software Developer**

SYM-TECH Inc., Canada 2014/9 – 2015/09

Developed functions for Dave (Dealer automated & verified e-solutions) system based on user requirements. Analyzed history data and extracted information. Database optimization. The key challenge is to minimize response time of the application. I achieved this by preprocessing the data to avoid using too many libraries and optimized the algorithms.

Developed RESTful WEB API services and implemented security features, such as encryption and authentication, role-based access control (RBAC).

Migrated DAVE system to Azure cloud using Azure Serverless framework.

Key Technologies: Java, Spring, GIT, SQL SERVER 2008, JPA, HTML5, JQuery,Apache,Node.JS,Azure,MongoDB

**Software Developer**

VIQ Solutions Inc., Canada 2012/4 – 2013/4

* Developed Import/Export web services that transfer audio/video evidence and associated case information via LAN/WAN or Internet for Encompass Remote Processing Control ("RPC") Suite, The Export service can perform backup operations, including generate XML files from Database, and Import service restore previous archived information and store data in a multi-tiered server system.. The challenge was to pass recording and annotation control between different type of users and servers. I solved this by carefully considering all the possibilities and designing the preprocess functions.

Key Technologies: C++, VS 2008, SQL SERVER 2008, MFC, .NET 4, Web Services, IIS 7.5, WCF, XML, SOAP, STL

**Senior Software Engineer**

Travelsky Technology Ltd., China 2003/4 – 2011/12

* Developed an Airport Operation System. The system contained a software bundle deployed in different functional departments in the airport. Each department had its own daily task and required a unique software module to support its operation. The flexibility to add or delete functional modules according to the size of airport and customer requirements was the key challenge to the design and implementation of system. As a lead developer, I analyzed and designed APIs, using my knowledge of OODA methodologies and design patterns to eliminate coupling between modules. The system was successfully deployed in more than 5 airports in China.

Key Technologies: Java, Spring, JPA, JMS, XML, HTML, MySQL, ORACLE 10g, WebSphere

* Reviewed and evolved the existing FIDS (Flight Information Display System). Worked closely with a video development team to create a brand new video/text information distribution system using embedded system techniques. Analyzed the performance of the whole system. Optimized response time and load balancing with the technique of profiling, 3 years before SIEMENS introduced a similar system to airport customers.

Key Technologies: C++, Linux, GCC, Bash, Socket, Python, Eclipse, Unix

* Developed interpreter of AFTN (aeronautical fixed telecommunication network) Telegraph using compilation technology, such as parsing and graph algorithms. Provided 5 more types of telegraph to customers, including weather telegraph, flight schedule telegraph etc.

Key Technologies: C++, automata technology, graph algorithms, unit test

**EDUCATION**

**Master of Engineering**  **Beijing Institute of Technology**  2003/4

**Bachelor of Engineering**   **Beijing Institute of Technology**  1999/7

**REFERENCES Available upon request**