
► Hao Pan

Beijing, China

Mobile: 15510004144

e-Mail: halo9pan@hotmail.com

Online: <http://cv.halo9pan.info>

Education

Master of Software Engineering [M.S.E.] (2004/9 - 2007/7)

IT Project Management

School of Software and Microelectronics

Peking University, China

Bachelor of Engineering [B.E.] (1999/9 - 2003/7)

Electrical Engineering and Automation

Collage of Electrical and Electronic Engineering

Huazhong University of Science and Technology, China

Work Experience

STAFF SOFTWARE ENGINEER (2005/10 - 2013/10)

IBM China Development Laboratory (CDL)

Information Management

Application and Integration Middleware Software

IBM Software Group

System Architect, Data Architect (2013/10 -)

iqiyi.com

Technical and Products Center

Backend Development Department

Personal website

<http://halo9pan.info>

GitHub

<https://github.com/Halo9Pan>

Programming Skills

► Java 80%

The first programming language in production. Familiar with JVM memory model and GC policy. Read the virtual machine specification and researched the concurrency and I/O parts. Rich experience in Java Web, and read parts of the Spring and Hibernate source code.

► **JavaScript 80%**

The second programming language in production. Familiar with JavaScript native API but not the popular front-end framework. Known about how the web browser working. Could use the popular frameworks and libraries skillfully. Some experience about the Node.JS.

► **HTML, CSS 70%**

Used for data visualization, known about the basic HTML element's semantics and CSS selector, position, box model, transform, transition etc.

► **GPGPU - CUDA, OpenCL 90%**

Familiar with GPU programming model, basic interface and performance optimization. Experience in OpenCL is more than CUDA.

► **C/C++ 60%**

Used in GPU programming as host language. Known about GNU gcc compiling. Writing Makefile and CMake. Some experience about OpenCV and ffmpeg.

► **Python 70%**

Used as system script and data analytic tools. Familiar with common API, but need to read documentation for details.

► **Ruby 50%**

Used in Vagrant, Chef and Puppet configuration script. Some experience in Rails.

► **Scala 50%**

Used in Spark. Known about common API and language grammar. Functional programming.

► **Groovy 40%**

Used in some dynamic language scenario, just used in some project, didn't know the detail.

Development Skills

► **Data Visualization 90%**

Rich experience on it. Have the management background, can summarize the data model by business model. Base on the requirement and using my technology stack to implement the data visualization form end to end.

► **Machine Learning 70%**

Familiar with the common algorithm, implemented the Naive Bayes, Linear Regression, Random Forest and kNN. Can using the Collaborative Filtering to build a recommender system. Used Theano, Caffe and learning TensorFlow and CNTK. Used Mahout and Spark ML in projects.

► **Parallel and Concurrent 80%**

Java concurrency, GPU SIMD, Functional programming and Actor pattern.

► **Hadoop 70%**

Known about HDFS, written the code about MapReduce. Configured Hadoop

system and optimization, read parts of source code and implemented the TeraSort. Have some experience about HBase, Hive, Pig, Flume, Sqoop, etc.

► **Spark 60%**

Known about RDD. Configured Spark system, read parts of source code and implemented the TeraSort. Used MLlib module and Streaming module.

► **Mesos 40%**

Installation and configuration, used with Spark. Read the allocator part source code.

► **OpenStack 60%**

Installation and configuration, enhance Horizon and read parts of source code.

► **Docker 70%**

Have some experience about installing Kubernetes. Currently my personal development environment are all based on Vagrant or Docker. Written Dockerfile in Docker hub.

► **Database 70%**

Have rich experience about database tools development in IBM. Configuration and optimization about MySQL, PostgreSQL and MongoDB.

Projects

► **iqiyi.com: Uniform Publishing Platform (2014/10-)**

Summary: Using the uniform publish interface for all kinds of clients, and there is a data discovery interface.

Duty: System Architect

► **iqiyi.com: Upgrade VIP System (2015/05-)**

Summary: Optimize the VIP system architecture. Slice the databases and tables. Using the micro-service to improve the flexibility. Enhance the system monitor and warning.

Duty: System Architect

► **iqiyi.com: Smart Operation System (2014/07-)**

Summary: The original operation system of iqiyi.com uses manual editing mode. It was inefficient, but the new smart operation system can improve editor's efficiency by intelligent video analysis and machine learning.

Duty: System Architect, Data Architect

► **iqiyi.com: Pages Compile System (2014/03-2014/06)**

Summary: The web pages in iqiyi.com publishing needs to be compiled into static pages to let users quickly access. The original system had the low performance, and couldn't use the resource effectively. Upgrading the system architecture, using multiple queues to improve performance and resource utilization.

Duty: System Architect

► **iqiyi.com: Pages Publishing System (2013/10-2014/02)**

Summary: iqiyi.com UGC(User Generate Content) uses pseudo-static pages, dynamically generated pages in the background, generating a fixed URL by URL rewrite when the page is displayed. Page content generating need to call multiple internal interfaces, using a multi-threaded concurrent framework which implemented myself to improve performance.

Duty: System Architect, Data Architect

► **OpenStack Horizon and Zabbix Integration (2014/02-2014/05)**

Summary: Show Zabbix physic machine monitor information in OpenStack Horizon dashboard

Duty: Product design, development

► **IBM: IBM Data Studio (2012/05-2013/10)**

Summary: [IBM Data Studio](#) provides an integrated, modular environment for database development and administration of IBM DB2 for Linux, UNIX and Windows. It also offers collaborative database development tools for IBM DB2 for z/OS, IBM DB2 for i, and IBM Informix. This software is available at no charge. IBM Data Studio enables developers and administrators to create and manage heterogeneous database environments for increased productivity.

Duty: Developer Leader, coding, leading the team finish the development work, discussing with the architect. Giving teammate assistance to improve the code quality and the knowledge of new skill.

► **IBM: IBM Smart Analytics System (2011/08-2012/04)**

Summary: The [IBM Smart Analytics System](#) is an integrated platform that provides broad analytics capabilities on a powerful warehouse foundation with IBM server and storage. Deeply integrated and optimized, IBM Smart Analytics System provides a single point of support for end-to-end analytics solutions.

Duty: Chief Developer, focus on the architect and design of Hardware Map UI. Coding to implement all the features. Giving teammate assistance to improve the code quality, and improve the product architecture.

► **IBM: Optim Query Tuner (2010/09 2011/08)**

Summary: [Optim Query Tuner for DB2 for z/OS](#) and [Optim Query Tuner for DB2 for Linux, UNIX and Windows](#) cuts cost and improves performance by providing expert advice on writing high quality queries and improving database design. It's easy-to-use advisors can help developers to write more efficient SQL queries

Duty: Developer, focus on the design and implement of Workload Access Path Comparison part. Giving assistance to teammate to improve the code quality and improve the product architect.

► **IBM: Optim Performance Manager (2008/03 2010/09)**

Summary: [Optim Performance Manager](#) provides a Web interface that you can use to isolate and analyze typical database performance problems. You

can view a summary of the health of your databases and drill down for more details. It provides: Preconfigured alerts, Health summary view of all monitored databases, Dashboards for drilling down to view specific types of problems for a database

Duty: Scrum master, developer leader, designer and coder. Leading teammate finish the development work, give teammate assistance to learning new skill.

► **IBM: Data Studio Administration Console (2006/04-2008/03)**

Summary: The [IBM Data Studio Administration Console](#) provides a rich Web interface for monitoring your DB2 servers. Use its database health and availability monitoring features to get a summary of system health, view dashboard metrics, investigate alerts, and troubleshoot problems using expert recommendations

Duty: Scrum master, developer leader, designer and coder. Leading teammate finish the development work, discussing with the architect.

Patents

CN 201410415527 数据处理方法及装置

CN 201510541196 一种聚合页面中数据模块的方法及装置

CN 201510146258 一种基于图像的用户动作标识区域确定方法及装置

CN 201510149300 一种终端数据展现方法和系统

CN 201510629933 一种浮点数处理方法及装置

CN 201510629934 一种浮点数处理方法及装置

CN 201510727225 多视角视频采集系统