

Hua Zhang
2406 NE 139TH ST X226
Vancouver, WA 98686

360-553-2393 (mobile)
<https://github.com/hustbill>
hua.zhang@wsu.edu

Technical Skills

An innovative software engineer with 8 years of development experience, and expertise in:

- C++/C#, Java, Object-C programming on Unix/Linux/Windows/iOS
- Concurrent and distributed applications with Akka/Scala, Maven/SBT
- Strong multithreading, debugging and troubleshooting skills
- Cloud computing, Amazon Web Service, EC2, REST/SOAP
- Hadoop HDFS and MapReduce framework internals
- Using Python, Hive/Pig to implement MapReduce jobs to support distributed processing
- PHP, jQuery, node.js, MySQL, SQL Server, Oracle and MongoDB
- Perl, XML/Json, Javascript, Unix Shell, PowerShell
- Expert in software configuration methodologies: Agile, IBM ClearCase, Git/SVN/TFS

Experience

- **Washington State University** Vancouver, WA
Research Assistant Aug 2013 - Present
 - A Resource Allocation middleware for distributed system
Design a resource allocation strategy in data sensitive environment
Implement this strategy by Java/Scala, Maven/SBT and AKKA 2.3.5
Build a middleware library to enable developers to allocate the resource automatically
 - A constraint-based job Scheduler for Hadoop YARN
Design a job-scheduling algorithm to satisfy the resource constraints
Implement the algorithm and build a job scheduler plugin library for Hadoop YARN
Setup a multi-node Hadoop cluster by Virtualbox and Ubuntu on the lab
Use Python, Hive and Pig to implement MapReduce jobs to verify the scheduler
- **Diebold** Shanghai, China
Senior Software Engineer/SCM Administrator Sep 2008 - Aug 2013
 - Enhanced Operator Assistant Suite
A turn-key maintenance solution for Bank operators on Opteva and Haibao ATMs
Platform: .NET framework/C++/C#
Participated in development with WPF & jQuery for this touch screen application
Solved the test issues and supported the feature deployment on site
System maintenance and technical support for China Construction Bank
 - Bulk Cash Recycler Module-USB Firmware Download Feature
Project scale: Client/Server architecture, about 12,100 lines code total
Technical lead - controlled schedule, dealt with cross team issues, conf-call with PM in States;
Excelled in Agile application development, drafted the design doc, coding, and unit tests
- **Alcatel-Lucent** Shanghai, China
Software Engineer Jan 2006 - Aug 2008
 - Developed data management solutions and Web applications for China Mobile, China Unicom and T-mobile

- Alcatel-Lucent 8650SDM (Subscriber Data Management)
SDM provides comprehensive solution for managing subscriber related data
Platform: Unix/C++/Java/XML/MySQL Cluster
Responsible for the complete encode/decode implementation Increased call attempts per second by 60% by introducing multi-threading mechanism to achieve more efficient CPU usage in SDM
- ngHLR (Lawful Interception Feature)
Lawful interception offers a complete system for transparently intercepting and extracting real time information from the vast amounts of voice, data and multimedia communications
Platform: Unix/Java/XML/SOAP
High level design and low level design, develop with SOAP
Feature implementation through cooperation with US colleagues for T-Mobile
- CPEMS(Customer Premise Equipment management System)
CPEMS is a Browser/Server system that is used to manage customer-posted devices
Platform: .Net Remoting, ASP.NET,ADO.NET, XML and SQLServer
Participated in developing the international version of the system Implement two features: device alarms management and batch uploading files

Leadership and Service

- MESA Mobile Apps Challenge Code Judge , Vancouver, WA 2015

Education

- **Washington State University** Vancouver, WA
M.S. in Engineering and Computer Science May 2015
- **Huazhong University of Science and Technology** Wuhan, China
M.S. in Software Engineering Dec 2005
- **Yangtze University** Jingzhou, China
B.S. in Mechanical Engineering June 2002

Certificates and Training

- Project Management Professional Certification (PMP) Shanghai, Oct 2010
- Six Sigma Green belt certification Shanghai, Feb 2010
- IBM Rational UCM (ClearCase and ClearQuest, BuildForge) North Canton, OH, June 2009