

Pat Nguyen

Senior Engineer

Personal Info

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Education
University of Missouri-
Kansas City

Degree
Bachelors of Science in
Computer Science

Clearance
Public Trust Clearance
Secret Security Clearance

Skills

KAFKA

JAVA

MAP REDUCE

SPARK

HADOOP

SQL STATEMENTS

APACHE

ECLIPSE

SPLUNK

LINUX

HBASE

**NATURAL LANGUAGE
PROCESSING**

C/C++

INHERITANCE

JAVA GENERICS

In my past roles and projects, I have developed WEB-Applications and automated tasks written in Java, administrated HP Servers with Windows and Linux operating systems, administrated HP XP24K Storage Arrays, installed Disaster Recovery Systems, generated user-defined data-types from multiple data-sources. I have created frameworks from abstract concepts to concrete implementation for fellow peers to further contribute and provided tutorials, trainings, "methods of procedures" documents, and lead discussions. In addition, I was a key contributor along with Principal Architects, Lead Architects, Network Architects, Business Intelligence Analysts, Staff Engineers, and Senior Engineers of a "Proof Of Concept" project that crossed organizational boundaries and visible to a large audience including Directors and VPs. Therefore, I believe my skills and knowledge are a great asset and will deliver value added results and further enhance my learning and develop my career.

Experience

Current

Projects

- JSON Parser (Completed) : This project was a refresher or review of concepts in Compiler Design and includes a Lexical Analyzer, Syntax Analyzer, Semantic Analyzer, and Parse Tree.
- Natural Language Processing (NLP) : This project was to learn the process of Search Engines. I have tokenized documents into words, stemmed the words into their root form, downcast the words to make them comparable, and insert the words into a Parse Tree for use of Apache Solr.
- Machine Learning and Data Mining : I started projects that includes Classification, Regression, and Clustering of large amounts of data.

2015-01-
2017-11

Senior Engineer *Centurylink*

Big Data/Hadoop:

- Programmed a custom Flume agent to collect data and ETL processing written in Java
- Implemented a Time Series Data Base using HBASE
- Programmed ELT using Map Reduce written in Java
- Installed and Admin. Hadoop
- Received Advanced Ecosystem Training with Cloudera
- Implemented Spark on Hadoop written in Java
- Developed Map Reduce program to transform Backbone Server log files written in Java
- Developed Custom Flume Source to gather logs from Backbone Server written in Java
- Developed Custom Flume Sink to transform and ingest Backbone Server Logs into Hadoop and HBASE written in Java
- Developed Kafka Producer written in Java to ingest log files into Kafka Server along with bash scripts to start/stop/restart and register with initd. And Log4J implemented
- Developed Kafka Consumer written in Java to transform log files to JSON into Hadoop file system along with bash scripts to start/stop/restart and register with initd. And, Log4J implemented
- Developed Spark Streaming written in Java to ingest log files into Hadoop file system via Kafka Server along with bash script to start/stop/restart and register with initd. And, Log4J implemented

Automation Development:

- Developed a program to automate the Network Operations Center procedures. This program was written in Java and uses concepts of Design Patterns and the tools provided by: Object Relational Mapping/Java Persistence API, TopLink, expect, and Log4J. DSL equipments will be investigated by analyzing log files and executing commands for real-time status, therefore the program, will determine and execute the appropriate procedure set by the Network Operations Center. Static attributes of the equipments will be validated for consistency, such as, IP Address, Host Name, Location Identifiers, Slot Number, etc... by comparing the attributes stored in the Relational Data Base and from an IBM Netcool alarm. Customers Premise Equipment (CPE) will be tested for connectivity.
- Developed a Nagios Linux Daemon plug-in or Adapter written in Java to monitor server's hardware i.e CPUs, Disk Array, Fans, Power Supplies, Memories, etc... via the Out-Of-Band Management System. The plugin communicates with HP Servers : ILO2, ILO3, and ILO4; Sun Micro Servers; and Super Micro Servers through the IPMI interface.
- Developed a script written in Java to make server administration more efficient. The script will enable/disable features and will register new users and passwords for the HP server's Out-Of-Band Management System. Due to change of role, the task to update firmware and commissioning/decommissioning of the server was not completed.

Additional Skills

MACHINE LEARNING

PERL

COMPILER DESIGN

GLASSFISH

UNIX

WINDOWS

AGILE SCRUM

WATERFALL

HTML

AUTOMATION

SYSTEM ADMIN.

REDHAT

CENTOS

UBUNTU

DISK ARRAY

MS WORD

MS POWERPOINT

MS EXCEL

MS ACCESS

System Administration:

- Primary/Lead System Administrator for Centurylink's (Legacy Embarq and CenturyTel) Local Number Portability systems for both upstream (SOA) and downstream (LSMS) systems. The systems consisted of Linux RedHat5 OS and Oracle 8 Database with shared disk arrays connected via fibers connects through Brocade switches. Installed the Disaster-Recovery System and developed a Bash script cron job for daily backups of the systems. Interfaced with the Federal Communications Commission to meet systems and PCI compliance. Partnered with vendors and end-users resolving problems that occurred with the systems.
- Administrated Windows servers by patching monthly security updates and allocated disk storage via HP XP24K Disk Array.
- Administrated the HP XP24K storage array and Brocade switches, created storage for the Linux and Windows Server when requested, and interfaced with Call-Home Vendors when a problem occurred.
- Administrated the HP Servers Out-of-Band Management System, commissioning the server by installing the disk arrays, add users and password, enable/disable features that are required, decommissioning of the servers i.e disabling the disk array and overwriting the disk, and meet PCI compliant requirements.

2013-09-
2014-04

Performance Testing *USDA (Contract)*

Responsible for end to end performance testing for Java Web Application. My other responsibility was to Stress Test Java Web Applications and make recommendations for better performance. Such as, JVM heap memory, in Apache/JBoss along with Jenkins or IIS/Websphere environment. The tools we used were HP Load Runner, Jmeter, Soap UI, Precise I3.

2013-03-
2013-07

Java Software Developer *U.S. Marine Corps. (Contract)*

Developed, debugged and constructed new features in accordance with team and stakeholders standards to existing Web Application for the U.S. Marine Corps. in an agile (Scrum) or Waterfall Life-Cycle using the Java Enterprise Edition stack with STRUTS/Spring MVC framework.

- Gathered and clarified define requirements, use cases, and design solutions
- Built appropriate testing scripts for code development
- Built scripts for database changes (Insert, Select, Delete, etc...)
- Worked with Java, Java EE6, EJB, Web Services, WSDL, Soap Messages, JNDI, Servlets, HTML, XML, Eclipse, Eclipse Link, SQL Developer, Enterprise Architect

2012-11-
2013-03

Nortel Technician Engineer *Ericsson (Contract)*

Provided second level technical support through calls, chats, and emails revolving telephone system hardware and software issues with Nortel, Cisco, and other legacy voice systems and data infrastructure in an Unix based operating system.

- Initiated and supported outage bridges to quickly and accurately resolve issues when occurred, and work to minimize impact to the business
- Provided surveillance of internal systems and proactively responded to alarms and alerts, partnering with IT and higher level technical support
- Opened documents and closed tickets in a timely manner

2012-03-
2012-10

Operation Technician *Centurylink (Contract)*

Answered, took repair calls and opened trouble tickets from customers for special circuits (T1, T3, PRI, etc...) and directed customers to the correct group.

Reconstructed and programmed the GUI section of the AMA decoder tool, for use of Voice Translations. The switch produces a file in Hexadecimal the decoder takes that file and interprets it into a readable format. The AMA decoder was written in PERL/Tk. In replacement of the Tk GUI tool-kit, the Activestate-PERL interpreter supports the Tk GUI tool-kit.