George Hanson

Hartney, MB 204-596-5024
gahanson@gmail.com
www.gahansonresume.ca

Experience

Software Developer II - **Shaw Communications** – Calgary, AB 10/2014 - 05/2018

Translated manual test cases for Gateway and BlueskyTV cable boxes to Python scripts

Manual testers use a cable box, remote and TV at their desk to follow test case procedures to verify Gateway and Bluesky software was working properly on the customer premise (CPE) cable boxes.

Developers translated procedures written by the manual testers into Python scripts that performed the same verification or test using third party video test equipment API's.

Designed, implemented and deployed PHP MVC website to select and run test case scripts

Used CakePHP MVC framework. Front-end used HTML, CSS, jQuery. Back-end used PHP.

Used LDAP to authenticate users and framework tools to authorized users to login and use parts of the site they were allowed to.

Part of web site allowed users to select individual test cases to run or create sets of test cases to run. Once tests selected and run is selected the backend would invoke the Python test case scripts, process the returned results and save the results to a MySQL database.

Designed, implemented and deployed Ingest Package Creator for video metadata testing

New Movies and TV shows are delivered to Shaw as a high quality video file and one or more xml files containing metadata such as the shows name, actors names and genre in a compressed file package.

These files must be processed to create video files of different formats and store the metadata in Shaw servers to be delivered to customer cable boxes and streaming services to be used in the cable guide or streaming websites and apps.

Shaw has an ingest system to take the files from the movie and TV studios and store the information in Shaw databases and file servers. The information is then delivered to customer premise cable boxes when requested, such as when the guide screen is used.

The Ingest Package Creator was a CakePHP website with a front-end that allows a user to select different metadata to include in an xml file and select test video files. The back-end then created an xml file and then created a tar file containing all the package files. It then allowed the user to send the tar file to the ingest system.

Designed, implemented and deployed Django website to monitor Video Content ingest

Needed a way to monitor the processing of metadata and video of an ingest package as it traveled through studio content ingest workflows.

The Django website would use an API to get data on running or completed workflows and also it would save the results to a database.

Website users would select a package name or id number and view a dashboard that displayed the individual workflows and the status of each. The status could also be compared to values saved from a previous ingest using the same package.

Created SoapUI test cases to test API's used to store metadata in MySQL and MSSQL DB's

Metadata for movies and TV is stored in MySQL and MSSQL databases to be used on cable box guides and streaming websites.

Internal SOAP and REST API's are used to ingest, process and manage the metadata on Shaw servers.

I created test cases in SoapUI Pro to test endpoints for internal API's.

Test cases were created by reading and analyzing API documentation, writing a test case and then creating the test case in SoapUI. Any custom code required was written in the SoapUI scripting language, Groovy.

Designed and implemented Python REST API and deployed as Docker container

Designed, implemented and deployed REST web api using the Django REST Framework.

The API was used to supply information to technical writers to view software versions of various Shaw internal software and third party software installed on Shaw servers in both Pre-Production and Production environments.

Initially deployed using Apache installed on Windows server.

Final deployment was in a Docker container using an automation server running Jenkins.

Performed system admin duties on Redhat Enterprise Linux server and Windows 2008 server

Maintained user accounts.
Installed and configured LAMP software.
Configured fstab for smb and nfs shares.
Deployed web sites and services.

Software Developer - **Vecima Networks** – Saskatoon, SK, 01/2005 - 09/2014

Windows Forms UI development and Backend VB.NET development

Test software consisted of desktop applications running on Windows PC's mostly written in VB.NET. Testing results saved to SQL Server databases using stored procedures.

Typically test software was started by Research and Development engineers and finished by product support software developers, of which I was one. Once the test software was feature complete and tested it was used on production lines to test manufactured equipment.

The test software would communicate with test equipment and the device under test to allow for automated testing of equipment and the saving of test results.

Lead maintenance developer for assigned production lines

Each product had its own production line.
Each product had a lead technologist.

A software developer was assigned to each product and coordinated with the lead technologist to handle troubleshooting problems, fixing bugs and adding features to test software.

Designed, implemented and deployed test software for RF radio base station

Received specifications and requirements from research and development lab located in Victoria, BC for software to test new WiMAX base station.

Coordinated with engineers remotely, and with local assigned technologist, to design, implement and deploy test software to local production line in Saskatoon.

Successfully met firm deadline to have product tested for shipping to the customer.

Lead developer for Terrace QAM test software rework to increase production line speed

To meet shipping deadlines the test software being used for PCD subassemblies and final assembled systems needed to be optimized.

Was part of a team assigned to analyze the testing processes and software for areas that could be optimized.

Reworked software to simplify UI and speed up several tests.

Integrated .NET and third party test equipment API code

Test equipment, such as power meters and Spectrum Analyzers, can be accessed over LAN and serial cables using API's and drivers provided by the manufacturers.

Integrated the API's into VB.NET backend code.

Electronics Technician - **Vecima Networks** - Saskatoon, SK, 09/1995 - 12/2004

Tested and repaired PCB sub-assemblies. Tested and repaired integrated systems.
Utilized digital multimeters, oscilloscopes, power meters, spectrum and network analyzers.
Soldered through hole and surface mount parts.
Assembled coax and wire cable assemblies.
Used hand and power tools to assemble, adjust and modify metal chassis.
Packaged finished product for shipment.

Education

University of Saskatchewan - Saskatoon, SK - 1998
Completed 2 years of credits including first year computer science courses.

Saskatchewan Institute of Applied Science and Technology (SIAST)
Advanced Video Systems Certificate - 1994
Certificate Received

Electronics Technician Certificate - 1993
Certificate Received