

Python Developer Python Developer Python Developer Chicago, IL I have experience in developing unit tests in c sharp for all the methods in a class in visual studio 2012, also used mock classes to mockout Stream Reader, Stream Writer, Serializer, DeSerialize and many etc. Good in Debugging both c sharp and python scripts and Developed an automation tool for HIL Testing using object oriented programming in python like inheritance etc, also flashed the software in Electronic control unit, developed a test plan to test the software in Electronic control unit, also used Control desk, Dspace. I am used to Agile Methodologies like daily standup meetings, backlog grooming and Sprint planning. Also used Version Controls like git bash and tortoise git and created pull requests in git hub, very familiar in usage of commit, checkout, push, pull, merge, status, add commands in git bash.

Tools and Technologies MATLAB/Simulink, QT-QML, Git Bash, Tortoise Git, WPF(XAML), TCP/UDP, JSON Parser, WX Widgets, Wireshark, Socket Programming, putty, Routing, Control Desk, Cat ET, Vector Canalyzer

Programming languages C, C++, Python, HTML, CSS, JavaScript, J Query, C#

Other Languages VHDL, PSpice, Proteus

Work Experience Python Developer Caterpillar January 2017 to April 2018 Project name: System Diagnostic Automation

Description: Developed a Test Automation Tool in python and integrated backend python script to XAML(WPF) Frontend for different user interfaces like Development of Test Plan and used modules like win32com, python net, os also developed another UI called Test Runner which has interfacing Electronic Control Units to DSPACE with GSI2 using modules like Cometutils, Ds PACE_ utils, win32com and another UI for Publishing Test Results to Server using modules like open pyxl, xlrd, xlsx writer and a common UI of Test Plan generator, Test Runner and Test Result publisher using submodules and Jenkins Continuous Integration server. Also used TCP/IP socket and JSON reader for the integration. Developed application using Python2.7.

Responsibilities: Used modules like beautifulsoup, lxml parser, xlrd, xlwt, pandas, numpy, matplotlib and CSV modules to extract contents from different files and do Generation of Test Plan, Test Running on DSPACE, publish results to the Server automatically and the integrator of all three modules onto one UI with Python as Back-end and using WPF for Front-End.

Implemented Strategic Design Pattern for the python scripting of Cassini and Zepplin instead of maintaining two different branches in the git

repository. Also experience with Data migration with Sqlite3 to MongoDB. Experience in Debugging Python Scripting and used a Debugger called Pydevd. Set trace in Py Charm IDE very efficiently and could debug the python script if there are any issues. Integrated all three modules onto one user interface with three different buttons where each button is calling three different user interfaces.

Used Multithreaded Programming called Background Worker to make the UI more Responsive. Also used object oriented programming so that it will be easier to use Strategic Design Pattern. Created a .exe for all the modules using py2exe and making the source code hidden from the user, and participated in all stages of software development life cycle including design, development, implementation, and testing. Used a Virtual PC without any installation of modules and tested that the .exe is working properly. Parsed various file formats including XML and JSON and loaded into MSSQL Server database with Python XML and JSON modules. Expert in Tortoise Git and Git Bash in very detail where I was giving some presentations to the new ones about how to use git. Developed Front-End XAML (Windows Presentation Format) user interface using Blend for Visual Studios using Storyboards, objects and timeline. Used Microsoft .Net Framework as an API for the Python Scripting. Participate in weekly Standups to update on the work progress. Used Target Process for putting updates on all the work in process.

DSPACE - Embedded Test Engineer
Caterpillar August 2016 to February 2017 Project Name: System Diagnostic HIL Testing
Description: The project involves developing and testing Algorithms for Input / Output processing and common diagnostics for future Machine Programs. This includes testing the Electronic Control Module connected with Hardware in loop systems and validating the algorithms using the model in loop approach to ensure all the input and outputs are thoroughly tested for all the ECM platforms before implementing on the actual Machines. Responsibilities: Tested System Diagnostic software for machine applications using DSPACE bench for Backhoe Loader and Hydraulic Excavator. Reviewed system/software requirements and developed and updated test plans. Executed manual testing using Control Desk and Python based automated testing. Documented test results. Analyze and reported issues using issues list. Participate in daily standups to update on the assigned stories. Familiar with using CATET and DSPACE GSI Education Masters of

Science in Electrical and Computer Engineering IIT - Chicago, IL Bachelor of Engineering in Electronics & Communication Chaitanya Bharathi Institute of Technology Skills TEST PLAN (1 year), MS ACCESS, MS OFFICE, GENERATORS, OSCILLOSCOPES, Javascript, Python Additional Information Other Skills Test Plan development, DSPACE, ECU, J1939, HIL Testing, Multimeters, Digital Oscilloscopes, Function Generators MS Office Tools MS Excel, MS Access

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