

Systems Software Developer II

Organization: QNX Wireless Framework (Karen [REDACTED])

Manager: Karen [REDACTED]

Location: Cary, CG2

Evaluated By: Karen [REDACTED]

03/01/2020 - 02/28/2021

Overall

Manager Overall Evaluation

Rating: Fully Meets Expectations

Goals

Performance Evaluation Questions

Highlight Key Accomplishments/Achievements:

Manager Evaluation

Response: Jerren rose to the challenge brought about by 2020 and the COVID19 pandemic. He worked to advance the [REDACTED] lab functionality and increase it's value to the team. This was especially important to enable a remote work environment for the Cary team. Jerren is very attentive to details and works to envision the whole solution, and then construct and deploy a viable test setup.

Jerren successfully completed a full schedule of development and testing towards the Blackfish test results database. Support and roll-out for the test result database is key for visibility and automation of test results within the company. This year, the test result database was a key factor in automatically generating the [REDACTED] master [REDACTED] table which was required as part of the safety certification process. This automation improved the MTT in 2 ways: specific test case results are recorded against each requirement, and the MTT was ~60% automated. This represents a large step in content and efficiency. Jerren's work in this area was central for these achievements. The test result database is also key for [REDACTED] benchmark result monitoring and reporting.

Jerren has also coached and mentored 2

Employee Evaluation

Response: 2020 was an interesting year for sure. The shutdown from CoVID definitely changed normal day-to-day work, but despite the side-step required, it was still a busy and productive year.

Work had already started on creating a clone of the [REDACTED] Lab test area at the Cary site ([REDACTED] Lab) back in 2019, but it was this year that it not only came to fruition, but thankfully was ready just in time for the team to use when the site was shutdown and we began working from home. Early in the year, I worked with E[REDACTED] to get the Z[REDACTED] server counterpart setup and working for our local test team. I assembled five test shelves and worked with M[REDACTED] [REDACTED] to wire up the first shelf for [REDACTED] Lab with power (remote controlled), ethernet, RS232, and USB connections. I installed ESD safety mats on all five shelves and wired up the remaining shelves similarly to be used by the WiFi and System test teams.

I've work with IT at various times to procure the correct equipment, help get it configured, and manage the security and user groups needed. We are currently putting together a plan to have a lab sub-net created at our site to help isolate our test devices from the [REDACTED] network.

Last year, I saw where WiFi test and [REDACTED]

student interns for a semester. Providing guidance and team leadership for the full-time interns can be cumbersome, but Jerren was successful in this endeavor, despite the remote working environment required by the COVID19 restrictions. Through Jerren's coaching, we were able to get reasonable productivity from the student interns.

Regression test were hard-coded to only work with specific switched power distribution units. For WiFi, this was an issue because the switched PDUs they used were beginning to fail and model used was no longer available. For [REDACTED] Regression, other manufacturers offered PDUs with twice the outlets, at almost half the price. I had created a proof of concept interface that was vendor-agnostic and would allow a mixture of PDUs to be used, and a common command issued from test scripts. This year, E [REDACTED] was able to utilize this interface when setting up [REDACTED] Lab and I am working with D [REDACTED], I [REDACTED] and J [REDACTED] to help them be able to replace their failing [REDACTED] power supplies in their test setups.

[REDACTED] Lab and the other test shelves have been vital at allowing our test team to continue working from home during the CoVID shutdown. Due to the success of the various test shelves, plans are already underway to have additional shelves setup for [REDACTED] test and additional WiFi certification tests.

I have continued to be an integral part of the design, implementation and maintenance of the BlackFish Dashboard infrastructure. This past year, we continued to not only add more test area results into the database, but have also worked to capture more details that help during analysis and investigation of problems. This additional information helps us develop tools that highlight when minor changes have occurred, that otherwise might have been missed or lost in the noise of all the test results.

We have continued to import the [REDACTED] Regression weekend test runs into BlackFish and are currently working with that team to directly insert the results to BlackFish and also provide them with the ability to automate the detection of prior failures. This new process will reduce the manual work of investigating the log output and hopefully allow problems to be detected and resolved faster than the current process.

I have continued my develop work on a LogParser to capture additional information from the [REDACTED] Benchmark logs. These

additional details are helpful to those tracking down problems that have been detected by the test. These changes have also included recommendations that we've been able to push back to the [REDACTED] Regression test team for improvements in the data that they capture during their regular test, so that the same benefits can be recognized by other test areas.

M[REDACTED] and I are currently working with the WiFi test team to get their test results stored into the BlackFish database. Earlier this year, we worked with J[REDACTED] and M[REDACTED] J[REDACTED] to provide them with the information they needed to push in their test results to BlackFish, however they switched focus to another task and haven't had a chance to revisit their work.

M[REDACTED] and I continued working with the senior design teams at North Carolina State University last spring. Mainly due to the changes forced by CoVID, we elected to skip the fall semester. Instead, we were able to hire and work with two interns this fall. Overseeing and mentoring undergraduates in this environment was a new experience for me. We were able to guide them and utilize their skills to implement some features into BlackFish web dashboard that we've wanted implemented for a while that will help with maintenance and communicating with users.

Our plans to intern another student this spring fell through when they accepted another offer. We didn't have quite enough time to put together a project and sponsor an NCSU senior design project this spring semester.

Highlight areas where company values have been demonstrated. Share specific examples about how the goals were achieved in a way that supported the BlackBerry values of Customer Focus, Innovation, Integrity, Team Work, Mutual Respect and Accountability:

Manager Evaluation

Response: Jerren demonstrates strong teamworking by continuously considering how the team can be more effective and efficient with their tooling and daily work methods. Jerren has a can-do attitude which together with a good sense of accountability, allows him to make

Employee Evaluation

Response: My customers are my co-workers. I have continued filling the role of being the local hands for IT, assisting coworkers with troubleshooting their PCs and other equipment, as well as replacing, verifying and configuring equipment in the server

progress against tooling objectives, which are admittedly sometimes vague. However, Jerren pursues clarifications and works to find a solid direction. Jerren respects everyone he interacts with, and strives to meet the expectations from his customers, ie other members of the development and test teams.

From a customer focus view, Jerren is very attentive and responsive to his customers, which include internal team members and stakeholders. Jerren continually aids team members who need help with IT issues, computer upgrades, software and rimnet issues. As an add-on responsibility, he serves as our local IT department, working in the IT closet and configuring equipment as needed. Jerren's customer focus is also evident when working on the Blackfish database. He is willing to continually evolve and adapt the database as needed by the stakeholder groups. This can be challenging at times, but Jerren maintains a delivery-focused and practical outlook which has enabled progressive steps towards the end goals.

From a teamwork view, Jerren demonstrates respect and a collaborative attitude, even when the discussions result in disagreements. He has built successful work relationships with local peers and other test teams in Ottawa.

From an accountability view, Jerren works in a proactive manner, addressing and improving the lab setup for his colleagues. He also demonstrates accountability in his project work for the Blackfish database. The features needed to support the MTT work were delivered on time. He demonstrates a strong passion to meet and exceed expectations.

room.

I worked with D and A to setup test shelves for the WiFi and Systems test in the center of our suite. During this effort, I learned of a problem they were having with the enumeration of test devices on their terminal server. Each time a change was required on a development board or the term server, all boards had to be disconnected from their USB connection and re-connected in a specific order. This was not only a time consuming task, but no test could be performed during the downtime, and it was very error prone. After some investigation, I was able to come up with a solution that fixed the enumeration problem. Now they no longer need to be physically present to restart boards or the term server and the error of accidentally communicating with the wrong board have been removed.

During a release of this year, I worked with J to develop a route on the BlackFish Server and a sample Python script that he was able to utilize to develop a script that retrieved test data stored in BlackFish. He was able to combine that data with information stored in JAMA to automate a large percentage of the MTT report required. If I remember correctly, approximately 40% of the report was auto-completed due to this effort. The remain 60% took several people another 6 weeks of work to finish, meaning that the 40% automatically completed saved that group approximately 4 weeks of effort.

When we all started working from home this year, many people ran into problems remoting into their Linux machines which were still in the office. Due to occasional power outages and necessary reboots, the computers were restarting and the remote desktop solution being used by many required a local login the first time after start-up. I was able to research and provide my coworkers with a solution that would avoid that limitation and would allow them to remotely login even after a reboot.

I worked with our IT to still continue with the planned laptop refresh this year for most of

our team. Things were a little more complicated since the transfer took place over a VPN connection. I helped several co-workers work through the problems they encountered during the migration and was able to get everyone back up and running on their new laptops.

Highlight areas of improvement required in the current role:

Manager Evaluation

Response: I encourage Jerren to continue developing skills in the web development and database management.

Employee Evaluation

Response: My knowledge of web development continues to grow while working on BlackFish. The frameworks we use now have major releases every 6 months. We try to keep up with this rapid release not only because of security fixes, but also because newly introduced features allow for faster development. However, this fast-paced world also means constantly learning new technique and moving away from old methods, requiring continuing education in the framework and JavaScript language.

My skill growth in these areas has helped me to not only become quicker at developing tools and scripts to help my fellow colleagues, but also at taking more inventive approaches to solving the tasks at hand.

Highlight areas that can support you in your career development (12 - 18 months):

Manager Evaluation

Response: Automation is a key strategic goal for the QNX test team. We need a divide and conquer approach that enabled each team at a different pace. I encourage Jerren to continue being engaged with multiple test teams to find synergies and exploit commonalities.

Employee Evaluation

Response: I still see a lot of potential for making improvement in our testing methods. With QNX adopting the strategy of focusing on improving our testing automation, I hope that some of these efforts can be realized. The [REDACTED] Lab and other test shelves in Cary have lots of areas that can be automated. I hope that together with my knowledge learned during the development of BlackFish, I'll be able to contribute to the design and strategy for some of these automation projects.

Section Summary

Manager Evaluation

Comment: Jerren has been successful this year, despite the COVID pandemic disrupting normal work life. He has stayed focused, taken on

Employee Evaluation

Comment:

challenging testing tasks and delivered thorough results. Jerren's technical savvy, willingness to take on new tasks, and solid productivity have contributed to successful QNX product deliveries. His work to facilitate lap solutions and support IT issues has been key to enable productivity for numerous colleagues. Thanks Jerren, keep up the good work!