

TEST ENGINEER

Summary

Have over 12 years of experience in hardware testing and validation. Experience with camera lens, camera module, and CMOS image sensor characterization, including lens flare performance. Experience with scripting using python language. Experience with image quality evaluation using Imatest software and charts. Experience with 3D/360 camera system for street map data collection. Experience with LED array characterization (power, thermal, color analysis). Work with engineers and designers to develop test plans, process and procedures. Support engineering in product and failure root cause analysis. Experience in data analysis, report writing and presentation. Experience in setting up test station building test fixtures, and installing test equipment. Well-versed with thermal test equipment including thermocouples, data acquisition systems, thermal IR cameras, thermal chambers, etc.

Skills

Python, Linux, Windows, MacOS, Androids, IOS. Software: Buganizer, Salesforces, Jira, Google docs, slide and sheets, SolidWorks, MS Office.

Experience

06/2015 to 06/2017

Test Engineer Drs Technologies i/4 Washington, DC

- Daily Task includes: Characterize image sensors and modules which includes: Capturing raw image in controlled environment, calculate performance metric using in house algorithms, compare sensors across various test (Blooming, photon transfer, quantum efficiency, Dark current).
- Perform power supply noise rejection test which focuses on determining the noise on the power supply on image taken with a camera module by sweeping frequencies at a predetermined noise level and capture images.
- Focused on taking consistent data to help track sensor performance from different vendors/technologies.
- Participate on sensor selection from different vendors/selection based on consistent measurement.
- Test and validate fully integrated mobile phone camera and use Imatest (Image Quality Software) to determine performance in low light condition, auto white balance accuracy, focus speed and sharpness on android and/or IOS application.
- Perform multiple test on camera lens which consist of checking: lens MTF (Modulation transfer function) chief ray angle, through focus, image distortion.
- Provide feedback on feature lens selection for upcoming devices.
- Perform lens flare performance in which we check the flare ratio on various angle and tilt position.
- Perform Power supply rejection ratio (PSRR) measurements to determine the effects of noise on the power supply on image taken with a camera module or evaluation board by sweeping frequencies at a predetermined noise level and capture images.
- Analyze images to determine the ratio of temporal noise to raw temporal noise.
- Perform various temperature test of image sensors in a controlled thermal chamber with fix integration time and different gain level increment to evaluate noise level.

06/2014 to 06/2015

Engineering Technician Resource Environmental Llc i/4 Albany, NY

- Mainly responsible for performing various functional, performance and stress tests.
- These tests include and are not limited to: Validating and uploading the firmware to the integrated smart light device.
- Performing functional tests which include: dimming level, wireless communication.
- Validating wireless communication interface for light control.
- Characterizing power supply or LED driver (Power Factor, Ripple, Heat Dissipation, Efficiency) Performing LED power supply circuit rework to get the desired voltage or current.
- Performing thermal characterization of the smart light using different heat sinks.
- Generating daily testing progress and defect reports for management.

09/2005 to 07/2014

Sr. Engineering Technician A2e Technologies i/4 San Jose, CA

- Mainly responsible for performing various functionality tests from board level to finish unit level.
- Tests include and are not limited to: For 3D mapping systems units: Checked first all system components and wiring before performing tests including checking and configuring the rotating Long Range Lidar sensor for visual details, IMU (Inertial Measurement Unit) and for positional accuracy and reliability, GNSS receiver frequencies, and wheel encoders. Calibrated the 360 spherical cameras to work with the rest of the system.
- For machine control: Performed various tests to ensure that automation software is functioning properly checking LCD backlight, valve current output, Can Buses, Sounds systems, RS232 communication, and loads the final firmware.
- For Application (User Interface) Performed an extensive GUI testing base on the functionality requirements.
- Opened defects and classified them by priority.
- Performed regression testing after defects were fixed.
- Prepared and distributed the daily test status reports.

03/2005 to 09/2005

Test/Debug Technician IBM i/4 City, STATE

- As a Test/Debug Technician, I received defective drives from customers and performed the following: Executed a full run of the drive under

the same failure condition to duplicate the failure.

- Tested all system functions and connections Troubleshoot and opened defects as necessary.
- Performed minor repairs, and generated daily reports.

Education and Training

Present

Bachelor degree : Computer Science Mission College Vaughn College of Aeronautics & Technology 1/4 City , State Computer Science Santa Clara). 2003-2005: Coursework in Aircraft Avionics

2002

Bachelor : Computer Information System, Esut Technology Dakar, Senegal Computer Information System, Esut Technology Dakar, Senegal

2013

SDLC/ Software Testing Santa Clara Adult school (Santa Clara).

2014

: IPC J-STD-001 - Soldering Certification (Fremont).

Languages

English: fluent. French: fluent.

Skills

3D, Acquisitions, Analyst, automation, balance, LCD, English, focus, French, functional, GUI, Image, Linux, MacOS, MS Office, Windows, Multi-meters, Oscilloscope, camera, cameras, Power supply, Power Supplies, progress, Python, Quality, repairs, SDLC, Software Testing, Soldering, SolidWorks, Technician, phone, Troubleshoot, User Interface, wiring