Theleeban Ragunathan

Data Analyst

Professional Profile

Test program developer with three years of development experience and three years of test data analysis and four years of failure root cause analysis experience using popular statistical and visualizing tools. And a freelance embedded systems consultant for an Ambient Intelligent based assistance startup, developing sensor system to observe human behavior.

Experience

Senior Test Engineer

UMSS, Singapore. 2014 to present

Testing data and yield analysis and testing yield improvement projects for optical sensor testing process. Involved in new product introduction assistance with customers to ensure smooth implementation. Product failure analysis support for customer complains. Test program debugging and version up. Providing software and hardware solutions to production testing platforms.

- Analyzing testing data to improve testing time and shorting test time, ensuring tested products are delivered to next process and KPI achieved.
- Yield prediction and low yield test platform analysis and counter measure.
- Bottleneck identification by analysing what type of product throughput will be low at which process.
- Auto data collection scripts for testing platforms device data logs and testing platform event logs for OEE(Overall Equipment Effectiveness) project.
- Failure root cause finding from testing data and other process data analysis.
- Failure product wafer mapping and analysis.
- Software development for test platforms to improve production staff usage and status monitoring.
- Hardware solutions to testing platforms to ensure smooth testing process.
- Test time reduction project for image analyzer testers by clustering testers from individual to work in parallel.
- Prototype project of testing low yield alert system via SMS for operations duty personal.
- Migration project for test environments running on legacy operating systems to virtual machines.

Embedded Systems Consultant (Freelance)

Ambient Intelligent Assistance, Singapore. 2015 to 2016

Involved as a freelance consultant to develop ambient intelligent platform to track and monitor ageing person's daily habits and routines learn and report when any anomaly arise and provide insight to medical personal. Developed and tested various sensor arrays to detect and report through IoT platforms to startup's core API.

- Developed proximity sensor arrays to feedback person's movement throughout the living space and lux level sensors and water flow sensors to detect resource consumption monitoring.
- Setup stereo camera sensor and developed program to detect person's body posture to monitor anomaly.
- Sensor data integration through IoT platforms.

Test Engineer

Panasonic Industrial Devices Semiconductors Singapore. 2009 to 2014

Developed test programs for image sensors. Introduced new products to testing process. Yield analysis, failure analysis and reporting to management in Japan.

- Test program development along with Japanese counterpart.
- Cost reduction projects by improving resource matrix.
- Failure root cause analysis using data from other process departments.
- Developing visualizing tools and automating reporting system.
- Failure analysis tools using tester data in VB and VBA.
- Analyzed and categorized failures reported by QA and developed proper failure analysis flow.

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Nationality: Singaporean

Education

Data Science Immersive

General Assembly

2019

Project based immersive course covering wide range of statistical analysis tools, technics ML models of data science.

- EDA, visualization and analysis on increasing SAT exam participation.
- Modelling and Prediction of Iowa housing price.
- Web scraping and classification of Reddit topics.
- Prediction of West Nile virus spread in Chicago
- **Capstone project:** Image sensor defect detection during production testing phase in sensor manufacturing.

Specialist Diploma in Embedded Systems

Nanyang Polytechnic

2011 - 2012

Bachelor of Engineering (Hon)

University of South Australia

2008 – 2010

Skills

Python
SQL
Scikit
Spark
Regression and Classification models
Neural Networks
NLP
OpenCV
Survival Analysis
Web scraping
VB
C
C++