TESSOLVE
A HERO ELECTRONIX VENTURE

Resume – Vignesh Senthilkumar

Linked Profile

PROFESSIONAL EXPERIENCE:

- Trained on Bench validation of mixed-signal data converters (ADC/DAC) & High-speed signal Electrical validation techniques, Eye diagram generation & Measurement, Jitter analysis using High Speed Keysight instruments, Equalization Techniques and S-Parameters Extraction and De-embedding Techniques.
- Trained in handling lab equipment: Keysight UXR-series oscilloscopes, M8045A BERT Pattern Generator, M8046A BERT Analyzer, Vector Network Analyzer, SMUs, DAQs, Signal generators, and DMMs.
- Developed Python-based automation frameworks for Automated test execution, Remote Instrument control, and data analysis and reporting.

TECHNICAL SUMMARY:

- **High Speed Interfaces –** DDR Technology, PCIexpress
- **Lab Instruments**: Keysight Infiniium UXR-Series 70GHz Scope, M8045A 64Gb BERT Analyzer, Vector Network Analyzer, Mixed Signal Oscilloscope, Multilane 4039B BERT, SMU, DAQ, DMM, DC Load.
- **Programming Languages: -** Python, GIT Version Control, Verilog, Embedded C, C Programming, Assembly Programming

WORK EXPERIENCE:

1.Silicon Validation Engineer – I (Bench Characterization) | Tessolve Semiconductor Private Limited

Project: Axiro – RF Bias Controller IP Validation:

- Validated ADC's & DAC's AC and DC parameters to assess SoC performance across PVT and Evaluated Current Sensor and LT Sensor sensitivity and accuracy PVT Conditions.
- Worked on Python automation scripts for Automated test execution and data acquisition, analysis, and report generation.
- Prepared detailed reports documenting all validation results in accordance with project and customer expectations.

Project: Synopsys – GPIO Validation:

- Developed Python automation scripts for executing test cases according to the Test Plan, including data acquisition, analysis, and report generation.
- Worked on test case optimization, reducing the test cycle time from 13 hours to 8 hours.

PROFESSIONAL CERTIFICATIONS & BADGES

Keysight Digital Badges

- Mastering PCIe® Measurement Techniques
- Receiver and Bit Error Rate Testing (BERT) Basics
- Automated Testing for High-Speed Digital Standards
- High-Speed Digital Design and Simulation
- Deep Dive on Oscilloscopes
- Oscilloscopes Triggering Fundamentals

NPTEL Lab Certification - **Electronics Devices and Characterization** - **WEL Laboratory, IIT Bombay**

NPTEL Certifications

- System Design Through Verilog
- Digital Circuits
- Introduction to C-programming
- Basics Electrical Circuits

Purdue University & Intel - Semiconductor Fabrication 101

Great Learning - Python Certification

ACADEMICS:

- **Bachelor of Engineering –** Electronics and Telecommunications Engineering

  Karpagam College of Engineering **|** **CGPA: 8.41**

Vignesh Senthilkumar