Contact

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Top Skills

C (Programming Language)

Project Leadership

machine learning

Certifications

An Introduction to Reliability Engineering

Data Science with Python

Neural Networks and Deep Learning

The Project Management Course: Beginner to PROject Manager

Machine Learning by Standford University

Publications

Modeling of program/erase transient in heterogeneous SiNx charge trap flash memories

Patents

Dual performance trim for optimization of non-volatile memory performance, endurance, and reliability

Ajay Manwani

Semiconductor Quality and Reliability Engineering Lead

Hyderabad, Telangana, India

Summary

Silicon Reliability and Qualification Engineering Lead with 8+ years experience. Rich experience in collaborating with business units for the requirements of qualification reliability/performance specs, product specifications, and timelines; providing consultation during product qualification issues

Experience

Micron Technology

Sr. Engineer, mNAND QRA

April 2022 - Present (3 years 5 months)

Hyderabad, Telangana, India

Key Result Areas:

• Leading managed NAND System quality and reliability evaluations

• Representing qualification and reliability group in cross-functional discussion about testing requirements and feasibility.

• Managing & performing system level failure analysis, root cause identification, containment actions, solutions and preventive measures

• Performing device characterization and electrical failure analysis (EFA); conducting failure analysis on die qualification failing parts

• Defining interface hardware specifications and performing validation of new interface boards

• Developing, maintaining & updating a working knowledge on System Qualification procedures, manufacturing methods, test setups and parts application to improve department efficiency and capability; providing technical guidance for junior engineers

Highlights:

• Team lead to setup for managed NAND System Qualification group in Hyderabad

• Worked with multiple Geos. and cross functional teams to bring up qualification skills and Test Infrastructure
• Provided training and mentorship to new engineers in the team
• Developed parser scripts for Qualification Data analysis
• Presented at multiple internal tech. sharing sessions and conferences

Western Digital

5 years 9 months

Staff Engineer, R & D Engineering

January 2020 - April 2022 (2 years 4 months)
Bengaluru Area, India

Key Result Areas:
• Performing Non-Volatile Memory quality and reliability evaluations
• Using statistics and Machine learning to develop predictive models using past die qualification data
• Managing & performing component level failure analysis, root cause identification, containment actions, solutions and preventive measures
• Responsible for quality & reliability test development, test code, and support scripts; defining and improving testing methods to address new product qualification issues on devices manufactured at R&D facility
• Performing device characterization and electrical failure analysis (EFA); conducting failure analysis on die qualification failing parts
• Defining interface hardware specifications and performing validation of new interface boards
• Developing, maintaining & updating a working knowledge on component technology, manufacturing methods, test setups and parts application to improve department efficiency and capability; providing technical guidance for junior engineers
Highlights:

• Provided training and mentorship to new engineers in the team
• Three Trade secrets on Nand Flash Memory
• Used automation scripts and statistical/Machine learning models thereby brought significant Test Time Reduction by more than 30%
• Presented at multiple internal conferences

Sr. Engineer, R & D Engineering

August 2016 - December 2019 (3 years 5 months)
Bengaluru Area, India

St. Vincent Pallotti College of Engineering & Technology
Faculty
January 2016 - July 2016 (7 months)
Nagpur

Conducted Micro-controller and C++ course and labs

Visvesvarya National Institute of Technology
Graduate Teaching Assistant
July 2013 - May 2015 (1 year 11 months)
Nagpur

• System Administrator: Assisted in installation and upgradation of EDA tools in linux environment

• Device Modeling Lab :-#Planned and successfully implemented various electronics Circuits like flipflops, Counters, Opamps using Ngspice software.

• Nano-electronics Lab: Implementation of semiconductor device modeling equations like Poisson, Schrodengier, Tunneling current equations in Matlab

Education

Visvesvaraya National Institute of Technology
Master of Technology (MTech), V.L.S.I. Design · (2013 - 2015)

Shri Ramdeobaba College of Engineering and Management
Bachelor of Engineering (B.E.), Electronics and Communications Engineering · (2009 - 2013)