SAAD ISLAM KHAN

Hardware Design & Verification Engineer | BS in Electronics

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📍 Islamabad, Pakistan

EXPERIENCE

Jr. Hardware Engineer
DreamBig Semiconductors Inc.

📅 September 2022   📍 Isb, Pakistan

- Working as an **Jr. Design Verification Engineer**
- Using Universal Verification Methodology **UVM** to verify **SMART-NIC SOC's** Design
- Deep learning of various interconnects and comm-protocols **PCIE CXL NIC APB CMN AXI AHB**
- Working on environment for stimulus to pass through various comm-protocols and error reporting in "VCS".

Design Verification Training
SINES-NUST

📅 June 2022 – August 2022   📍 Isb, Pakistan

- Hands-on System Verilog based verification which includes User defined data type and structures, Interfaces and virtual interfaces, Clocking blocks, Classes, Randomization, Coverage and Mailbox. Verified a memory design using System Verilog through randomized stimulus in System Verilog.
- Created Layered Testbench, generated and drove transactions to DUT, Monitored and Verified with golden results in Scoreboard.
- Hands-on learning and implementation of architecture and flow of transaction in UVM with Cadence Xcelium.

PROJECTS

FPGA Based 7-Segment Rolling Display

- Design included basic design like clock dividers and 7-segment conding, decoding.
- Synthesized the design successfully on FPGA Spartan3

Memeory Read/Write using AHB-Lite Protocol

- Verified a memory module connected to Test-Bench using AHB-Lite protocol by passing stimulus and comparing expected result with actual results.

Smart Home Automation Device

- Used MQTT Protocol to control an Arduino based Home Automation system. Created website and provided remotely accessibility.

Social-Distance Measuring Robot

- Created an Arduino based human following robot for Medical robotics development. It can detect distance between two objects and produce a voice alert to mentain social distance real-time.

EDUCATION

BS-Electronics CUI, Islamabad
📅 2018 – 2022   📍 ISB

HSSC Jinnah Institute of Informatics
📅 2015 – 2017   📍 RWP

SSC St Mark's High School
📅 2003 – 2015   📍 RWP

SKILLS

Verilog | SystemVerilog | UVM | RTL
Linux | Synopsis | Candence | Yaml
Shell-Scripting | Git-Lab
Version Control | LateX

COURSEWORK

- Digital Logic Design
- Object- Oriented Programming
- Digital System Design
- Computer Architecture
- Electronics I & II
- Circuit Thoery

LANGUAGES

English   ●●●●●
Urdu   ●●●●●

ACHIEVEMENTS

- Completed DV-E Training held at SINES, NUST by 10xEngineers, Dreambig-Semi, AQL-Tech and Impare Inc.
- Got appointed for interview by DreamBig-Semiconductor & 10xEngineers. Recieved Job offers by both. Got hired by DreamBig Semiconductors Inc.