Neil Thanawala

BITS Pilani, Goa,India.
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Education

Examination	Institute	Year	CGPA
UnderGraduate *Electronics and Instrumentation*	BITS Pilani, Goa	2019	7.94
Higher Secondary Certificate *Electrical*	Pace Jr. College, Thane	2015	89%

Coursework Completed

Digital Design, Microelectronics, Microprocessors, Analog and Digital VLSI Design, Neural Networks, Mobile Telecommunication Networks, Software for Embedded Systems

Technical Proficiency

Languages : C++, Verilog, Python

Work Experience

Infinera (July '18 – Dec'18)

- Digital Design of InfnScope
  - InfnScope is a logic analyser tool which goes on Infineras chip.
  - Designed the logic to implement the module in Verilog.
  - Created API for processor interface to read inputs from the user in C++.

- G.U.I.D.E – GUI Debug Environment.
  - Created a GUI based application to implement register read, register write commands on FPGA.

- Verification of the i2c Bus protocol
  - Created a UVM environment to verify the communication of two microcontrollers on the i2c bus and wrote test cases for functional coverage.
  - This project was part of my UVM training.

Projects Completed

- *Image de-raining using residual networks.*
  - Rain is treated as Gaussian noise. The aim of the project was to remove this noise using convolutional neural networks using a custom dataset.
  - Modified the architecture of a dense residual network for it to run on a slower processor.

- *Object Detection using deep neural networks*
    - Implemented object detection using a modified YOLO algorithm to identify fighter tanks based on a dataset created using a toy tank. The algorithm was tested on videos containing tanks and other vehicles.
    - This project was presented in a competition *Druse* held by DRDO (Defence Research and Development Organization).

- *Design and Simulation of a cash register system.*
    - A cash register system is commonly used in grocery stores, megastores to process the bill of various items purchased.
    - Simulated the design for required specifications in MASM and 8086 microprocessor emulator. Implemented the simulation on Proteus to observe the correct functionality of the system.

- *PCB implementation of a Traffic Light System*
    - Created a hardware implementation of a traffic light system using IC555 timer on a PCB board.

Position of Responsibility

- *Captain, Tennis Team ('17-'18)*
- Design Head, Nirmaan Organization ('17-'18)

Awards

Winner at

- Singles, Goa State Championships at Cidade de Goa (Feb '17)
- Doubles, Goa State Championships at Cidade de Goa (Feb '17)
- Spree, Annual Sports fest of BITS Goa (April '16, March '17)

Runner Up at

- BOSM, Annual Sports fest of BITS Pilani (September '17)
- Arena, Annual Sports fest of BITS Hyderabad (January ,16)
- Skream, Annual Sports fest of KJ Somaiya College (January '17)

Scholarships

- *KVPY – Kishore Vaigyanik Protsahan Yojana (Feb '15)*
    - The "Kishore Vaigyanik Protsahan Yojana" (KVPY) is a program started in 1999 by the Department of Science and Technology (DST), Government of India to encourage students who are studying Basic Sciences to take up research career in Science. The aim of the program is to identify and encourage talented and motivated students to pursue career in research.

Volunteer Experience

- *Project Shiksha, Nirmaan Organization (Aug '15 – May'18)*
  Taught Maths to underprivileged children in the slums of Zari.