

Ashwin Olakangal

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Education

B.E(HONS.) EEE

2018 - PRESENT

BITS-Pilani, Hyderabad Campus

CGPA : 8.0 (Currently)

HIGHER SECONDARY, CBSE

2015-2017

Delhi Public School, Vadodara

Percentage: 81.8%

SECONDARY, CBSE

2015

Delhi Public School, Vadodara

CGPA: 9.4

Skills

LANGUAGES

C/C++, Python, Verilog HDL,
Assembly, Processing3,
Shell Scripting

OTHERS

Vivado Design Suite,
Xilinx ISE Suite, FreeRTOS,
ROS, OpenCV

Coursework

INCLUDING PRACTICUM

Digital Design
Microprocessors and Interfacing
Internet of Things

PURSuing CURRENTLY

Computer Architecture
Operating Systems

Field Of Interest

Computer Architecture
Firmware Development

Projects

Nand2Tetris JUNE 2020 - JULY 2020

Project Centric Course on Coursera

Implementation of hardware for a modern 8-bit computer, using an HDL unique to the course, which will later run a software game of tetris.

Digital Logic and Circuit Design, HDL, Assembly Programming

FreeRTOS on Arduino JUNE 2020

Independent Project

Extended the multitasking ability of Arduino, by porting FreeRTOS to it and implementing various elementary operations such as creating, scheduling, deleting tasks.

Arduino, FreeRTOS, Real Time Operating System (RTOS)

Handwritten number detection ONGOING

Independent Project

Using OpenCV created a handwritten number detection program, with plans to implement it on Raspberry Pi, where the input will be taken from PiCam.

Raspberry Pi, OpenCV

SONAR Mapping System JUNE 2019

Independent Project

Using an Ultrasonic sensor, Servo motor, Processing3 and Arduino, a mapping mechanism is created which gives real time visual plot about object detection such as distance, angle, proximity.

Arduino, Processing3, Serial Communication, Sensor Interfacing

Experience

Certification : Nand2tetris JUNE 2020 - JULY 2020

Completed

Build a Modern Computer from First Principles: From Nand to Tetris (Project-Centered Course)

Internship : Nectorr Labs MAY 2020- JUNE 2020

Completed

Worked as an intern on a project which involved creating a website for team organization and collaboration.

NodeJS, MongoDB, Javascript, HTML, CSS

Extra Curriculars

Automation and Robotics Club AUGUST 2019 - PRESENT

Core Member

Worked on SAUVC, conducted intro to robotics workshop, and events for the technical fest, as a member of the club.

Movie Club JANUARY 2019 - PRESENT

Core Member

Worked on scripts and club projects.

Football team AUGUST 2018 - DECEMBER 2018

Team member