# Placement prep

## Hardware profile

**Digital** 

Analog

**Power electronics** 

**Embedded** 

### Companies visited for digital profile

Qualcom

**Texas instruments** 

Samsung

Edgeq

Micron

**NXP** 

**AMD** 

Western digital

### Syllabus digital profile

Digital electronics(FSMs,Counters,frequency dividers and Mux)

Clanguage(Recursion, pointers, outputs, errors)

Static timing analysis(Setup,hold,clock domain crossing,synchronisers types,FIFO)

CMOS VISI design(PMOS,NMOS,CMOS IV curves,Metastability,noise margins,delays,power analysis)

Computer architecture(Atleast one microprocessor assembly language, Caches, Memory)

HDL language(Verilog or VHDL)

#### Must do Resources for studying

https://www.youtube.com/playlist?list=PL803563859BF7ED8C (Top rated playlist for digital electronics)

<u>https://www.vlsiuniverse.com/fifo-depth-calculation-vlsi/</u> (Fifo depth calcultation)

https://www.vlsiuniverse.com/fsm-finite-state-machine-qustions/ (FSM important questions to solve)

http://www.vlsi-expert.com/p/static-timing-analysis.html?m=1 (VLSI expert STA)

https://www.youtube.com/playlist?list=PLHO2NKv71TvsSqYwVvUCZwNkY-jUyUHdS (Digital ic design playlist)

https://www.youtube.com/playlist?list=PLxCzCOWd7aiHMonh3G6QNKq53C6oNXGrX (COA playlist)

https://www.geeksforgeeks.org/c-multiple-choice-questions/ (Lots of output questions for C language)

https://www.youtube.com/playlist?list=PLUtfVcb-iqn-EkuBs3arreilxa2UKIChl (Verilog nptel)

#### Extraas

<u>https://www.fpga4student.com/</u> (To get project ideas or projects for resumes)

https://www.youtube.com/playlist?list=PLPmSCnkkX4guw-EYO1k\_vG04OFVaKvWIC (Interview questions playlist)

https://www.youtube.com/playlist?list=PLdcY8Cf-O1ZrW51cabfrAjSvbIG0URQ9\_ (advanced material playlist)

https://drive.google.com/drive/folders/1MHzUdVPkjM719vXCV6icpoGYkJ2YNLxG (Study material mixed)