# Manikandan Gunaseelan

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#### **EDUCATION**

## BITS Pilani, K K Birla Goa Campus

BE (hons) Electronics and Communication Engineering

DAV Public School, Pune

 $Grade\ XII$ 

DAV Public School, Pune

 $Grade\ X$ 

GPA: 8.05/10

Aug. 2018 – July 2022 Score: 92.8%

core: 92.8% May 2018

GPA: 10/10

May 2016

#### SKILLS AND COURSEWORK

**Relevant Coursework**: Computer Programming, Computer Architecture, Digital Design, Microprocessor Programming and Interfacing, Cryptography, Communication Networks

Technical Skills: C, C++, Python (Flask, pytest), Cisco IOS XR, MySQL, GNU/Linux, Bash Scripting

## EXPERIENCE

# Cisco Systems India

Aug 2022 - Present

 $Software\ Engineer$ 

Bangalore, KA

• Contributing in the design and maintenance of the Manageability Models Sneak-Peek dashboard, which provides data about model adoption in the different Automation packages across teams in Cisco's Mass-Scale Infrastructure Group

#### Cisco Systems India

Jan 2022 - July 2022

Technical Undergraduate Intern

Bangalore, KA

- Contributed to CAFY Automation Packages used for automating testcases to exercise features of Cisco's Network Operating System IOS XR
- $\bullet$  As a part of the Manageability team, automated multiple test cases for NETCONF and NACM protocols using Python library functions and APIs to communicate with IOS XR
- As a part of LPTS-AAA team, assisted in the migration of Traffic Generator platform from Spirent to IXIA for the LPTS packages including run failure analysis and debugging

#### **PROJECTS**

## Implementation of MIPS Processor in Verilog | Computer Architecture

Mar 2021 – Apr 2021

- Verilog implementation of pipelined and single-cycle (modified) MIPS processors
- Single cycle processor had a floating point addition instruction which used a separate IEEE754 Floating point adder module
- Pipelined processor with a forwarding unit, hazard detection unit and basic branch prediction to tackle data and control hazards
- Understood the basics of processor working and design, the differences between single-cycle and pipelined processors, and the handling of various hazards that arise when working with a pipelined processor

#### Spirit Level Reaction Time Tester | Microprocessor Programming

Mar 2020 – Apr 2020

- Implemented a reaction time tester on the Intel 8086 Microprocessor which checks a person's sobriety based on their reaction time in pressing a button upon seeing a sequence of LEDs
- Also included a simulation on Proteus 7 using the x86 Assembly language

#### CERTIFICATIONS

#### Google IT Support Professional Certificate | Coursera

July 2020

- Included courses on Networking Fundamentals, Operating Systems, System Administration and IT security
- Hands-on experience in the form of virtual labs conducted on Qwiklabs

# Introduction to Data Analytics for Business | Coursera

June 2020

- Learnt about the data analytics practices executed in the business world how data is created, stored, accessed
  and then later analysed
- Involved a module on the basics of SQL