# BUSIREDDY JAGADEESHWAR REDDY

# VLSI ENGINEER

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#### CAREER SUMMARY

A highly motivated and skilled Electronics and Communication Engineer eager to work in the VLSI front-end domain roles (RTL Design, Design Verification). Passionate about contributing valuable work to innovative projects and learning from industry leaders, I am confident in my ability to make a meaningful impact while growing as a professional.

## PROFESSIONAL TRAINING/CERTIFICATION

ADVANCE VLSI DESIGN AND VERIFICATION

Feb 2025 - to date

Maven-Silicon VLSI Design and Training Center | Bangalore, India

FUNDAMENTALS OF DIGITAL ELECTRONICS FOR VLSI

Nov 2nd, 2024

Coursera- an online course authorized by L&T EduTech.

• PROGRAMMING FOR EVERYBODY (GETTING STARTED WITH PYTHON)

Oct 21st, 2023

Coursera - an online course authorized by the University of Michigan.

## **EDUCATION**

DEGREE	INSTITUTION	DURATION	AGGREGATE
B-TECH (ECE)	GITAM UNIVERSITY (BANGALORE)	2021-2025	8.0 CGPA
INTERMEDIATE (M.P.C)	NARAYANA JUNIOR COLLEGE	2019-2021	916/1000
SSC	NARAYANA SCHOOL	2018-2019	9.8

## TECHNICAL SKILLS

- VLSI Design
- Verilog
- Basic Programming Languages (Python and C)
- Xilinx Vivado
- Modelsim
- Cadence Virtuoso

# **PROJECTS**

1. <u>ROUTER 1x3</u>: May 2025 – present

Maven-Silicon VLSI Design and Training Center | Bangalore, India

Designed and implemented a 1x3 Router functionality for forwarding data packets between computer networks and developed a Verilog HDL-based design for an OSI layer 3 routing device.

- Tools & technologies VLSI Design, Verilog, Digital Electronics, Modelsim, Quartus Prime
- Developed the comprehensive block-level architecture for the router, integrating key components such as FSM, dedicated FIFOs for each output and robust error detection logic.

# 2. <u>BIST DESIGN FOR FAULT DETECTION IN CIRCUITS</u>:

Dec 2024 - Mar 2025

B-tech | GITAM, Bangalore

Design a BIST architecture and inject it into modules to find the faults in circuits

- Tools & technologies BIST, VLSI Design, Verilog, Modelsim, Quartus Prime
- TPG (test pattern generator) is used for pattern generator as input for DUT.

- MISR is used as a signal analyzer and to generate a Golden signature.
- With the help of a Golden signature Faults are detected.

# 3. PROTECTING USER PASSWORD KEYS AT REST:

Intel Unnati | Bangalore, India

Developed a security system using Python and cryptographic algorithms for real-time file management and protection

- **Tools & technologies -** Python, Tkinter, AES Encryption, Argon2.
- I designed a secure and user-friendly encryption tool utilising AES-256 with a graphical user interface (GUI) for easy file and folder encryption and decryption.
- Developed an innovative approach to integrating FPGA boards into functional tests, leading to systematic assessments that ensured compliance with industry standards while maintaining accuracy within a margin of error below one per cent.

# **INTERNSHIPS**

• Self-Development and VLSI Design Intern

Intel® Unnati Industrial Training for File Protection

May 2024 - Jul 2024

May 2024 – Jul 2024

May 2024 - Jul 2024

# **ACHIEVEMENTS**

• Certificate of Completion - Intel® Unnati Industrial Training – 2024

## **HOBBIES**

- Doing workouts in Gym
- Watching movies

# **DECLARATION**

I hereby declare that all the details mentioned above are true and factual to the best of my knowledge, and I take responsibility for the accuracy of these particulars.

PLACE: BANGALORE NAME:

**Busireddy Jagadeeshwar Reddy**