

# ATHIRA NHAMANGHAT PURUSHOTHAMAN

Location: 21ST SE HICKORY, NC, 28602

## Professional Summary

Senior Design and Verification Engineer with 3 years of experience in ASIC design verification, specializing in SystemVerilog and UVM. Holds an M.Tech in VLSI Design with strong fundamentals in digital design, SoC architecture, and simulation methodologies. Authorized to work in the U.S.(L2 visa holder) without sponsorship, currently seeking remote or on-site opportunities.

## Technical Skills

- **Languages/HDLs:** SystemVerilog, Verilog, VHDL, C, Python (Basic)
- **Protocols:** Ethernet (MII, GMII, XGMII), AMBA (AXI, APB), I2C, LIN, Energy Efficient Ethernet (EEE)
- **Verification:** UVM, Functional Verification, Coverage-driven verification, Testbench development, Assertion-based verification, Functional coverage, Debugging
- **Tools:** Synopsys DC, VCS, DVE, VERDI, Redmine, Tortoise Git, JIRA, QuestaSim, ModelSim, Cadence (schematic, layout, post-layout simulations), RC Compiler, Anaconda, MATLAB, Xilinx ISE, Latex

## Professional Experience Tata Elxsi, India

*Senior Design Verification Engineer*

May 2022 – Jan 2025

- Random test generation(RTG), constraint random ad coverage driven verification for RSWITCH Ethernet switch with Assertion using UVM.2 methodology and system verilog, including both code and functional coverage closure.
- Created reusable testbenches that reduced effort required for future projects, improving overall efficiency.
- Debugged RTL simulations, performed coverage analysis, and collaborated with design teams for issue resolution.
- Mentored junior engineers on best practices for effective design verification, fostering a culture of continuous learning and collaboration.

## Robert Bosch Engineering and Business Solutions Private Limited, India

*Intern*

Aug 2018 – Mar 2019

- Worked in Embedded device driver development for test systems used in active safety.
- Gained valuable experience working within specific industry, applying learned concepts directly into relevant work situations.

## Education

- **M.Tech in VLSI Design** Amrita Vishwa Vidyapeetham, India 2019
- **B.Tech in Electronics and Communication Engineering** – Calicut University, India 2015

## Publications

- **Deep Learning Based Language Identification System From Speech** – International Conference on Intelligent Computing and Control Systems (ICICCS), India 2019
- **A Hybrid Processing Approach for Enhancement of MAV Aerial Images** – International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE), India 2015

## **Visa Information**

- L2 visa holder with employment authorization in the U.S