Sai Govardhan

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I'm an Electronics and Communication student (B.Tech) at PESU Bangalore, with a VLSI domain Specialization and a passion for Digital Design and Computer Architecture.

Education

PES University, RR Campus, Bangalore (2019 – present)
BTech in Electronics and Communication Engineering
VLSI Specialization
Grade up to 8th SEM: 7.59 CGPA

Allen Career Institute, Basaveshwara Nagar, Bangalore (2019)
PESSAT: AIR 1017, JEE Mains 93.61 Percentile

Presidency School, Nandini Layout, Bangalore (2017)
ICSE, Grade 93.67 Percentage

Experience

VLSI Design Intern, (January 2023 - present)
Gyanlakshmi Innovations, IIIT Bangalore
Working on Computer Architecture, Benchmarking, Memory, and Cognitive Computing, under Dr. G N Srinivasa Prasanna.

AI Hardware Research Intern, (January 2023 – present)
Centre for Innovation and Entrepreneurship, PES University
Researching Hardware Architectures for AI and ML workloads, with hands-on exposure to Intel FPGAs and Accelerators, under Prof. Sathya Prasad.

Satellite Architecture Research Intern (Hardware Domain), (September 2023 – present)
OrbitAID Aerospace, Indian Institute of Science, Bangalore
(Work bound by Non-Disclosure Agreement)

Student Teaching Assistant,
PES University

- **Embedded Firmware Development with UEFI** (2023)
  Using the TianoCore's EDKII platform to demonstrate the UEFI shell.
- **Synthesis, Physical Design and Timing Analysis of Digital Circuits** (2023)
  Implementing HDL to Floorplan demos on the Mentor Oasys tool, and guiding analysis on physical design characteristics and timing analysis.
- **Digital System Design** (2022)
  Was responsible for implementing Advanced Digital Design concepts on the Cadence Tools, with emphasis on hands-on projects for over 190+ students.

Projects

B.Tech Capstone Project, (2022)
Hardware Accelerator for Data Sorting, PES University
Designed a novel hardware architecture to provide efficient sorting of data, with analysis of different sorters and their low power variants (Total of 14 implementations at 50MHz) under the guidance of Dr. Sudeendra Kumar.

Project Intern, FarmBot, (2021)
Center for Internet of Things, PES University
Built a household farming automation bot using CNC principles, with the main functionality of watering and detecting plants and weed. Was in-charge of the electronics domain of the project, and guided the next batch of hardware interns.

Skills

Digital Design (ASIC Design, FPGA Prototyping) using Verilog and System Verilog,
Static Timing Analysis, Equivalence Checking, Synthesis,
Functional and Formal Verification (Assertions), Coverage,
Computer Architecture, Embedded Systems Design, Hardware Security,
C Programming, IoT, Entrepreneurship,
Tools: Cadence (NCSim, Genus, Tempus, Incisive Metrics Center, Conformal LEC, IFV),
Mentor (Oasys, QuestaSim), Xilinx Vivado, Intel Quartus.

Certifications

Cadence Digital Badge Programme (Credly Link: http://www.credly.com/users/sai-govardhan/badges)

- Genus Synthesis Solution with Stylus Common UI v21.1
- Low-Power Synthesis Flow with Genus Stylus Common UI v21.1
- Conformal Equivalence Checking v22.1
- Basic Static Timing Analysis v2.0
- Tempus Signoff Timing Analysis and Closure v21.1
- Fundamentals of IEEE 1801 Low-Power Specification Format v8.0
- Cadence RTL-to-GDSII Flow v4.0
- Joules Power Calculator v21.1

Awards

Won **2nd place at the Hackezee Hackathon** (2021)
for the project- Gesture Controlled Rescue Vehicle in the electronics hackathon organized by the ECE Department PESU.

Won **3rd place at the Gutsy Entrepreneur 2.0 Contest** (2020)
for the EmoBuild business idea, in the entrepreneurship hackathon organized by the Centre of Innovation and Entrepreneurship PESU.

Won **2nd place at Pioneer** (2020)
at the Business Modelling Contest organized by the Centre of Innovation and Entrepreneurship PESU.

Distinction Awards for the I, II, V and VII semesters for securing more than 7.75 SGPA.

Won the **Most Disciplined Outgoing Student award,** (2017)
at Presidency School, Nandini Layout.

Won 3rd place at Cryptonite (2016)
a cryptography contest in the Synchronize fest at Bishop Cottons School, Bangalore.

Activities

Mental and Emotional Wellness (MEW) PESU – Worked with MEW group in the 3rd Semester of Engineering and moderated three online Emotional Connect (EMC) sessions from March to June 2020

PESU Student Support Platform – Proposed and helped build: ssp.pes.edu in the 1st semester of Engineering.

Languages

English, Kannada, Telugu, and Hindi.

Website

https:/govardhnn.github.io