

K RAJESH SAI

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CAREER OBJECTIVE:

To channelize my knowledge and research expertise in the field of computer architecture and electronic systems design for solving problems that are posed in achieving HPC and efficiency. Which, would pave the way to create platforms and applications that are beneficial to society.

QUALIFICATIONS:

Bachelors in Technology in Electronics and Communication with specialization in VLSI

Vellore Institute of Technology University- AP, Amaravati. 2017- 2021

CGPA: 9.28

Higher Secondary (10+2 equivalent)

SRM Junior college (TS-BIE). 2014-2016

Percentage: 96.4%

Secondary schooling (10 equivalent)

Dilsukhnagar Public school (SSC, AP-BSE). 2014

GPA: 9.5

PROJECTS UNDERTAKEN:

- **Customized Hardware Accelerator for AI Applications using FPGA** (July 2020 - Present):
Design of flexible hardware processing system along with its divers for Linux kernel; to be able to work as a co-processor in EDGE devices for fast AI training and Inference. (to be proposed for URE-02)
Technology stacks used: Verilog, C++, embedded Linux, RISC-V.
- **Cloud Generator - CGOR** (July-2018, November -2018):
Designed an autonomous floating buoy system to clear oil spills and accelerate cloud formation. The device Analyzes the local conditions and relays data over the cloud.
Won 1st prize, Engineering Clinics Expo FALL-2018. Yet to be filed for Patent.
- **Smart humanoid robot** (November-2017, March -2018):
Devised a human-like 5-feet Humanoid robot with emulated localizing capabilities and 3D surrounding mapping using RADAR, OpenCV, and specialized voice assistant features.
Selected into the top 20 for Clinics Expo-Winter 2017.
- **Autonomous humanoid robot** (July-2017, November-2017):
Biped Robot powered by Amazon's Alexa with custom skills, made using Raspberry Pi and Arduino.
Won 1st Prize, Engineering Clinics Expo FALL-2017.

RESEARCH & PUBLICATIONS:

- **Design and Optimization of Accelerated VLSI architectures for Deep Neural Networks.**
Author: K. Rajesh Sai.
Undergraduate Research Experience Thesis Submitted to School of Electronics Engineering, VIT-AP, 2020.
- **VLSI architecture of DNN Neuron for Facial Recognition.**
Authors: K. Rajesh Sai, Plabini Jibanjyoti Nayak, Yallamandaiah S
Published by Taylor and Francis, CADEC-2019 at VIT-AP. ISBN: 9780429340710.

INTERNSHIPS:

- **SRKs Veda Solutions** – Worked on React native and various AWS applications for building Learning Management System from scratch – 2020.
- **NSIC** – Autonomous robot using image processing and personal Assistance – 2019.
- **Path Creators** – IoT development boards and power management profiles – 2016.

COURSES & CERTIFICATIONS:

- **Computer Architecture Design:** Princeton University.
- **IT Project Management:** Indian School of Business.
- **Leading Teams, Influencing people:** Michigan Ross School of Business.
- **C++, Verilog HDL:** Nano scientific research center, Hyderabad.
- **Deep learning:** OneFourth Labs (padhai.com).
- **Internet of Things:** University of California-Irvine.

KEY SKILLS:

- **Programming languages:** C, C++, Python, Verilog, System Verilog, JavaScript, and Java.
- **Tools:** Cadence - Virtuoso, NCSim, OrCAD; NI LabView, Xilinx-Vivado, System Generator; NI Multisim, LabVIEW; Simulink, Solidworks, Eagle PCB, AWS.
- **Frameworks:** UVM Verification, Xilinx - Vitis, RISC-V, React-Native.
- ASIC design and development, FPGA development, Embedded Systems, IoT, and Deep Learning.
- Event planning, Scheduling, and Talent management skills.

POSITION OF RESPONSIBILITY & ACHIEVEMENTS:

- **Best Young Mind - Award:** VIT-AP. (2018)
- **1st position:** Engineering clinics, VIT-AP.(Fall-2017, Fall-2018)
- **Program Representative:** ECE-VLSI, VIT-AP. (2018-Present)
- **Vice-Chair:** IEEE Students Chapter, VIT-AP. (2019-2020)
- **Synergy Team Lead:** TEDx VITAP-2019.
- **President:** Be a Nerd Club, VIT-AP.(2018-2020)
- **Core Coordinator:** Documentation team, Vitopia 2020, VIT-AP.
- **Member:** Robinhood Army – Vijayawada. (2018-2020)

CONFERENCES ATTENDED:

- VLSI Design Conference 2020, IEEE Bengaluru.
- Analog IC design workshop: Concept to Reality - 2019, AGI-IEEE Hyderabad.
- Workshop on LoRa Wan - 2019, IEEE -IIIT Hyderabad.
- Three-day workshop on Artificial Intelligence at the Techfest - 2017, IIT-Bombay.

INTERPERSONAL SKILLS:

- Good communication and presentation skills.
- Proficient in public speaking and Student Mentorship.
- Good time management skills and a team player.
- Fluent in English, Hindi, Telugu, and Beginner skills in French.

INTERESTS:

- Travelling and photography.
- Reading novels, manga, and history.
- Playing badminton, soccer, heavy graphic demanding PC games.
- Keen interest in keeping myself updates through magazines, blogs, and the Internet.