Raghavendran Ganesan

Vellore,Tamil Nadu

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EDUCATION

Vellore Institute of Technology, Vellore — 2021 − 2025
*BTech Electronics and Communication Engineering - **CGPA** - **8.94*** — Vellore, Tamil Nadu

Indian School Dar es Salaam — 2020 − 2021
*Senior Secondary - **Percentage** - **95.6%*** — Dar es Salaam, Tanzania

COURSEWORK and TECHNICAL SKILLS

Programming Languages: Python, C++, C, SQL

Web Technologies: HTML, CSS, JavaScript, PHPRunner

Hardware & EDA Tools: Verilog, Embedded C, Cadence, MATLAB, ModelSim, Quartus Prime, Keil uVision, LtSpice, MobaXterm, OptiSystem

Coursework: VLSI Design, Embedded Systems, Analog Circuits, Communication Systems

PUBLICATIONS

Raghavendran Ganesan, Ronit Wakankar, Sumanyu Simhachalam, T Velmurugan.
Improved Efficiency of Fog and Cloud Computing Paradigms.
2024 2nd International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC), IEEE Xplore, 2024.
DOI: 10.1109/AKGEC62572.2024.10869278

PROJECTS

Enhanced CSI Estimation using Deep Learning in UV MIMO Systems | — 12 2024 - 04 2025
- Built a deep learning model with CNN,Attention Mechanism and Transformers for UV MIMO CSI Estimation.
- Generated 20,000 samples of Poisson-based CSI samples for training.
- Outperformed LS and MMSE;validated using TensorFlow on Google Colab.
- Achieved 61% SSIM with the DL model versus 46 % for LS—a 15% improvement.

Redefining Accuracy of Crash Detection Systems in Commercial Vehicles | — 07 2024 - 11 2024
- Designed an Arduino based Crash Detection System for vehicles, enabling rapid GPS-based emergency alerts.
- Integrated accelerometer, GSM, GPS, ultrasonic, and sound sensors to improve detection accuracy.
- Optimized system using SoftwareSerial and TinyGPS++ for efficient communication and data handling.

IoT Based Weather Monitoring System using ESP8266 | — 03 2024 - 07 2024
- Designed an IoT system for real-time monitoring of temperature, pressure, humidity, air quality, and light.
- Utilized ThingSpeak for data transmission,storage and visualization.
- Executed a real-time data interface, enhancing IoT weather monitoring with advanced features.

INTERNSHIPS

MeTL Group Limited | — 06 2024 − 07 2024 — *Dar es Salaam,Tanzania*
- ∗ Assisted in integrating Helpdesk with Assest Management.
- ∗ Supported database management using PHPRunner and Navicat SQL.
- ∗ Contributed to the database structuring and optimization.

Maven Silicon Softech Pvt Ltd | — 08 2023 − 10 2023 — *Bengaluru, India*
- ∗ Worked on a RISC-V architecture project using ModelSim,Quartus Prime, and MobaXterm.
- ∗ Gained knowledge in pipelining, memory hierarchy, and computer architecture fundamentals.
- ∗ Learned and implemented Advanced Verilog HDL.

EXTRACURRICULAR ACTIVITIES AND ACHIEVEMENTS

Writing Intern, Marpu Foundation (NGO): Content created and edited for social-awareness campaigns.

Awards: Gold Medal for achieving the highest academic score in Class 12 (School Topper).

Music Proficiency: Skilled in Tabla and Keyboard (trained by Indian Commission of Dar es Salaam).

CERTIFICATIONS

VLSI Design Methodologies – Maven Silicon
TCS – Cybersecurity Analyst Virtual Internship (Forage)
The Complete Python Bootcamp From Zero to Hero in Python (Udemy)