Raghavendran Ganesan

Coimbatore, Tamil Nadu

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EDUCATION

Vellore Institute of Technology, Vellore   2021 − 2025
*BTech Electronics and Communication Engineering - **CGPA - 9.00***   *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 using CNN, Attention Mechanism, and Transformers for UV MIMO CSI estimation.
- Generated 20,000 samples of Poisson-based CSI samples for training and validation.
- Achieved 61% SSIM, outperforming LS (46%) and MMSE methods.

Redefining Accuracy of Crash Detection Systems in Commercial Vehicles | **07 2024 - 11 2024**
- Developed Arduino-based crash detection system with GPS-based emergency alerts.
- Integrated accelerometer, GSM, GPS, ultrasonic, and sound sensors.
- Optimized code using SoftwareSerial and TinyGPS++ libraries for real-time processing.

IoT Based Weather Monitoring System using ESP8266 | **03 2024 - 07 2024**
- Created IoT system to monitor temperature, humidity, air quality, and light in real time.
- Used ThingSpeak for cloud storage, transmission, 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) – Created content for social awareness campaigns
Gold Medal – Highest Academic Score in Class 12 (School Topper)
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)