RAKESH K

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Professional Summary

Motivated and detail-oriented postgraduate in Electronics with a strong foundation in Digital Electronics and a keen interest in VLSI design and verification. Seeking to kickstart a career in the semiconductor industry where I can apply my academic knowledge and passion for chip design to real-world projects.

Education Credentials

- **University of Calicut**   **2023-2025**
  MSc Electronics
  Ongoing
- **University of Calicut**   **2020-2023**
  BSc Electronics

Skills

- Digital Electronics
- VLSI Design & Verification
- Physical Design Fundamentals
- ASIC Design Basics
- RTL Design
- Software :
  Programming languages - Python , C , C++ , HTML, SQL
- Verilog HDL, System Verilog (Basics)
- MATLAB, Xilinx ISE, Python, C (Intermediate)
  Keil, Proteus
- Libraries - Tensorflow, PyTorch, NumPy, Pandas, Matplotlib
- Artificial Intelligence, Machine Learning, Natural Language Processing, Data preprocessing
- Familiarity with DFT
- FPGA Design Exposure

Projects

- **Power Grid Optimization**
  This software project aims to optimize the load , cost ,and many power in a power grid using optimization techniques.
  Tools and Technologies: Python ,ML , Pytorch, Matplolib, Pandas , Django
- **Image compression using AI and DSP**
  Designed an advanced image compression algorithm combining DSP techniques and AI to achieve superior compression rate while preserving visual quality.
- **Hi - Tech Bus**
  High tech bus, that collects bus fare by an automated system, from which passengers can pay using a RFID card and get receipt, Passengers will be notified in every stations, and bus also supported automated doors.
  Tools and Technologies: Arduino, Microcontroller, Embedded C , Node MCU , HTML

Strengths

Leadership Quality
Team work
Punctuality
Self confidence

Language

- English

- Malayalam
- Tamil
- Hindi

Achievements & Awards

- Completed Python 101 for Data Science certification course by IBM
- Completed Python for beginners course by MICROSOFT
- Successfully completed the Fundamentals of Generative AI course by MICROSOFT