PRAJWAL GOWDA M

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OBJECTIVE

Final year Electronics and communication Engineering student with skills in Java, Python, c,c++(basics).Passionate about full-stack web development with strong problem-solving and software engineering abilities.

EDUCATION

- **JSS Academy of Technical Education** — *December 2022- Present*
  B.E. in Electronics and communication and Engineering — Bengaluru, India
  ○ CGPA: 7.5

- **STG PU COLLEGE** — *2022*
  Pre-University Education — Mandya
  ○ Grade: 89.33

- **Nirmala Higher Primary School** — *2020*
  Secondary Education — Mandya
  ○ Grade: 88.32

SKILLS

- **Programming Languages:** C, C++, Python (Basics),
- **Tools / Platforms:** Git, GitHub, VS Code, MATLAB , Arduino IDE, HTML/CSS

PROJECTS

- **Project A: [Foot Step Power Generation Using Piezoelectric Sensor]**
  ○ A network of piezoelectric sensors embedded in floor tiles converts mechanical stress from footsteps into electrical energy through the piezoelectric effect.
  ○ Generated voltage from each sensor is collected, conditioned via rectifiers and voltage regulators, and stored in capacitors or batteries for later use.
  ○ The harvested energy powers low-consumption devices (e.g., LED lighting or wireless sensors), demonstrating a sustainable, on-site renewable energy solution for smart buildings**.**

- **Project B: [Secure Visual Data Processing: Image Encryption and Decryption through Reversible Logic Gates in VLSI Design]**
  ○ Design and implement a VLSI architecture using reversible logic gates (e.g., Toffoli and Fredkin gates) to perform real-time encryption and decryption of visual data streams with minimal energy dissipation.
  ○ Develop a secure data path integrating reversible gate networks for pixel-wise permutation and substitution, ensuring lossless recovery of original images while thwarting unauthorized access.
  ○ Validate the design through HDL simulation and FPGA prototyping, analyzing metrics like power consumption, area overhead, and encryption throughput for scalable secure imaging systems

  -**Project C: [Air and Weather Quality Monitoring System]**

  -**Project D: [Implementation of 5-Stage Pipeline MIPS Architecture]**

CERTIFICATIONS

- **programming in python**
- **internet of things from NPTL**
- **data structures in C++ form NPTL**

ACHIEVEMENTS

- Solved 120+ problems across all coding platforms. Profiles - GeeksForGeeks, LeetCode
- Complete Arduino for Beginners -Udemy
- Full stack Development -GeeksforGeeks

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