Umesh Shankar

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EDUCATION

Vellore Institute of Technology   **Tamil Nadu, Chennai**
B.Tech. in Computer Science and Engineering   *Expected Graduation, May 2028*

- o **GPA:** 8.44
- o **Related Coursework:** Structured and Object-Oriented Programming, Python CPP, Modelling of digital circuit using Model Sim (Language : Verilog) , Design of simple Circuits using LTSpice, visualization 3d models using MATLAB

Padma Seshadri Bala Bhavan Senior Secondary School   **Tamil Nadu, Chennai**
HSC & SSLC   *2009- 2024*

- o **Grade:** A
- o **Related Coursework:** Python, SQL, PCM

PROJECTS

Advanced Vehicle Safety System   **VIT Chennai**
Team Lead   *January 2025 – April 2025*

- Integrated crash detection using accelerometers and instant emergency alerts via GPS and GSM modules
- Enabled real-time data sharing with nearby vehicles and navigation apps for smart traffic management
- Built a dynamic web dashboard for live monitoring and emergency notifications using Frontend: HTML, CSS, JavaScript and Backend: Node.js
- Achieved 95% obstacle detection accuracy and 99.8% system uptime in testing. Contributed to significant reductions in accident risk and improved emergency response times.

Mini Elden Ring game   **VIT Chennai**
Team Member   *January 2025 – April 2025*

- This project is a turn-based RPG game inspired by the mechanics of Elden Ring. The player chooses a class (Warrior, Mage, or Rogue), battles various enemies, levels up, and progresses through increasingly difficult areas. The code is structured using Object-Oriented Programming (OOP) and implements all 22 required features, including inheritance, polymorphism, operator overloading.

Automated Plant Watering System   **VIT Chennai**
Team Member   *August 2024 – December 2024*

- Led software study and documentation, analysing LDR behaviour via hardware experiments and LTspice simulations
- Integrated automated light and moisture control for real-time environmental response using Arduino and LDR
- Demonstrated scalable, sustainable solutions for efficient agriculture using IoT technologies

ACTIVITIES AND LEADERSHIP

Toastmasters International   **VIT Chennai**
Member   *Aug 2024 – Current*

- Active member of Toastmasters International; delivered multiple speeches and represented club in area contest hosted at Infosys
- Organized and chaired several meetings for EXORDIO VIT Toastmasters Club
- Conducted interviews and onboarding sessions for new club members

DAO   **VIT Chennai**
Member   *April 2025 – Current*

SKILLS

Programming: C, C++, Python, HTML, CSS, SQL, MATLAB, Verilog
Tools: Visual Studio Code, Power BI, Jupyter Notebooks, Git, Model Sim (Intel FPGA) , LTSpice , SPSS (IBM) , Arduino IDE