KAVYA

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**EDUCATION**

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| --- | --- | --- | --- |
| B. TECH(Electrical Engineering) | 2021-2025 | Delhi Technological University, New Delhi | 6.2 |
| AISSCE/CBSE (Class XII) | 2020 | Sarvodaya Vidyalaya, Sec-3 Rohini | 72 % |
| AISCE/CBSE (Class X) | 2018 | Saint Giri Sr. Sec. School | 86 % |

* **Software Developer Intern- Indian Oil Corporation Ltd.|| (May 2024 – Jul 2024) ||**

**INTERNSHIP**

* Managed employee databases for a workforce of over 30,000 utilizing SAP.
* Contributed to a team responsible for managing data on refinery capacities and customer relations at IOCL, which operates 11 of India's 23 refineries
* **Crash Severity Detection System**

**ACADEMIC PROJECT**

* Harnessing data from various **IOT Modules/Sensors** and implemented on a small-scale model with a Python based script for retrieving, sending and storing data for real time precise resource allocation.
* Developed and implemented CSDS utilizing Arduino Uno and multiple sensors (FSR, GPS, Impact Switch) to accurately assess and classify accident severity in real-time, improving emergency response times and resource allocation.
* Achieved real-time data processing and integration with a custom-built Apache server and MySQL database, enabling seamless communication with emergency services for faster dispatch and enhanced accident analysis.
* **Snake Game**
* In this game the player controls a snake that moves around a bounded grid, eating food pellets and avoiding

collisions with the walls and its tail. The game includes adjustable difficulty levels and keeps track of the player’s score.

* Developed Gameplay Mechanics: Implemented the core mechanics of the Snake game, including snake movement,

collision detection, and score tracking.in real-time, improving emergency response times and resource allocation.

**TECHNICAL SKILLS**

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| C++, HTML, CSS, JavaScript  Node.js, UART, GPIO, Deep Learning | MATLAB, MySQL, FreeRTOS, ARM,  Integrated BLE, Wi-Fi, PWM, DMA | Git, VS Code Studio, CI/CD, Oscilloscopes |

* **LOGOISTICS Co-Head at ENGIFEST’23**

**POSITIONS OF RESPONSIBILITY**

* + ENGIFEST is North India’s Largest cultural fest. My role was to Managed a team of logistics volunteers, overseeing their tasks and ensuring smooth operations. Successfully coordinated logistics for the college cultural fest, accommodating the needs of thousands of attendees and participants.
  + Implemented a streamlined registration process, reducing wait times and enhancing participant satisfaction. Developed and maintained a comprehensive logistics plan, including transportation, accommodation, equipment and supplies. Resolved logistical challenges and emergencies as they arose, making quick decisions to minimize disruptions. Part of the organizing committee of **Homcoming'22 fest (footfall of 30,000+)**
* **LOGISTICS Co-Head at DTU Sports Council**
  + Successfully served as a Co-head of the Sports Council at DTU AAVAHAN, leading and coordinating 30+

sports events, managing 10+ teams, and fostering a spirit of sportsmanship and teamwork among students.

* Certificate of Completion for contribution to Subhansh Sewa Trust as Fund raising Intern.

**EXTRA-CURRICULAR ACTIVITIES**

* Certificate of appreciation received at Del Tech Model United Nations Conference for representing portfolio Germany in the simulated committee as Best Delegate.

● Work on low-level firmware, Linux/Android BSP, and real-time systems

(FreeRTOS/Zephyr) with rapid prototyping using Arduino IDE.

Key Responsibilities:

● Develop & optimize firmware for IoT/AI SoCs (MediaTek, Qualcomm, Nordic, Realtek,

ESP32).

● Prototype peripherals (Arduino IDE) and debug drivers: camera, IMU, audio, touch,

haptics, sensors.

● Integrate BLE & Wi-Fi, customize Linux/Android BSPs (kernel, device tree, HAL).

● Contribute to audio pipelines (wake word, noise reduction, echo cancellation).

● Implement OTA, bootloader (U-Boot), diagnostics, and low-power RTOS tasks.

● Power optimization (DVFS, sleep states) and cross-team system bring-up.

Required Skills:

● Strong Embedded C/C++, ARM fundamentals.

● Bare-metal & RTOS (FreeRTOS, Zephyr).

● Embedded Linux/Android (drivers, U-Boot, device trees).

● Peripheral integration: UART, I2C, SPI, GPIO, PWM, DMA.

● BLE/Wi-Fi connectivity; Arduino prototyping.

● Debugging tools: JTAG, SWD, logic analyzers, oscilloscopes.

● Git workflows (CI/CD, branching).

Preferred Skills:

● Edge AI (TFLite/ONNX), camera ISP (WDR, 3A), and audio DSP.

● Yocto/Buildroot, Android HAL modifications.

● Wearable power profiling & optimization.

● Full embedded stack exposure: RTOS + Linux/Android + AI.