ADITYA GAUTAM

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EDUCATION

INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY, DELHI (IITD) **(NEW DELHI, INDIA)**
Bachelor of Technology in Electronics and VLSI Engineering (BTech, EVE) 2023-2027
Marks Obtained : 7.30 *CGPA* (*Until Semester* 02)

AMITY INTERNATIONAL SCHOOL, MAYUR VIHAR (AISMV) **(NEW DELHI, INDIA)**
CBSE, Class XIIth (PCM) 2023
Marks Obtained - 80%

AMITY INTERNATIONAL SCHOOL, NOIDA (AISN) **(NOIDA, UTTAR PRADESH)**
CBSE, Class Xth 2021
Marks Obtained : 93%

PROJECTS

SPLIT ERGONOMIC KEYBOARD https://github.com/aditya23043/split_keyboard
I designed a 20-key custom split ergonomic keyboard to address the discomfort I experienced while using a traditional full-sized QWERTY keyboard. The standard layout required extensive finger movement to reach various keys, leading to strain and fatigue. My innovative design minimizes finger travel by ensuring that each key only requires movement of at most one adjacent key. This unique split configuration enhances typing comfort and significantly improves ergonomic support compared to conventional keyboards, making it a more efficient and user-friendly alternative.

ASSEMBLER & SIMULATOR https://github.com/aditya23043/Assembler-and-Simulator
Assembler is a type of computer program that translates programs written in assembly language into machine code that can be executed by a computer processor. Simulator performs a simulation upon a binary code which allows for the testing of the functionality of the binary code.

OCR: Images to Text https://github.com/aditya23043/OCR/
Converts text from multiple images to text using python modules like PyAutoGui, Numpy, PyTesseract, Pillow, etc.

PASSWORD MANAGER https://github.com/aditya23043/PassManager
Simple Tkinter based password manager hosted on a local MySQL database. Does not require internet connectivity for loading or storing passwords, enhancing security and privacy, and provides complete control over the storage and management of passwords.

TUI TIC TAC TOE https://github.com/aditya23043/TuiTicTacToe
A terminal based tic tac toe game utilizing the concept of pseudo random numbers to generate the next move of the computer.

CvC BAR GAME https://github.com/aditya23043/CvC_BarGame
An automated game based on the classic brick breaker game, created to comprehend the core concepts of pixel graphics on generic OLED displays based on I2C protocol in conjunction with interfacing with the most popular microcontroller, Raspberry Pi Pico.

FETCH THE BERRY https://github.com/aditya23043/FetchTheBerry
A competitive pixel game based on the classic snake xenzia game which utilizes the ssd1306 oled display alongside analog input from a joystick breakout board. Furthermore, it provides an option to switch between dark mode and light mode for the user's convenience.

TECHNICAL SKILLS

PROFICIENT : BASH, MYSQL, PYTHON (*SymPy, OpenCV, Pillow, NumPy, Matplotlib, PyAutoGui, SMTPLib, CSV, Pickle, re, PyMySQL, Tkinter, KivyMD*), C++ (*OpenGL, Pico SDK*), GLSL, MICROPYTHON, CIRCUITPYTHON, KICAD, *OPENSCAD*, *LINUX* (*Arch*).
INTERMEDIATE : DART (*Flutter*), LUA (*Neovim*), EMACS-LISP (*Emacs*), RUST.
SOFT SKILLS : Organisation, Creativity, Time Management, Problem Solving, Communication, Teamwork, Leadership.

RELEVANT COURSEWORK

Introduction to Programming, Introduction To Human Computer Interaction, Linear Algebra, Communication Skills, Digital Circuits, Basic Electronics, Probability & Statistics, Data Structures & Algorithms, Computer Organization, Introduction to Sociology and Anthropology.

EXTRA CURRICULAR ACTIVITIES

- Young Maestro (AISN'15) for musical proficiency in flute, scottish drums and electronic music production.
- Credited for various post-production projects (Audio and Video editing) - collectively having over 1k views on meta-based applications.
- Keen electronics enthusiast, with various micro-projects - proximity sensor for automobile, buzzer and visual guidance for senior citizens & orthogonal split mechanical keyboard for improved hand ergonomics.