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ACADEMIC DETAILS

Year	Degree	Institute	GPA/Marks(%)
Aug 2022 - Jun 2026	*B.TECH (CSE)*	Graphic Era Hill University Haldwani	9.22
Jul 2022	12th *CBSE*	Aryaman Vikram Birla Institute of Learning	94.8
Mar 2020	10th *CBSE*	Aryaman Vikram Birla Institute of Learning	93.6

FIELDS OF INTEREST

- Embedded Computing, Low-level programming, Computer Networks, Home Labs

TECHNICAL SKILLS

- **Languages & Scripts:** C, Dart, Python, Shell (bash, pwsh), JavaScript/TypeScript, HTML5, Markdown/MDX, LaTeX, Mermaid, Regex

- **Database:** MySQL/MariaDB, Postgres, Redis

- **Libraries & Frameworks:** Tkinter, FastAPI, Flutter, AstroJS, TailwindCSS

- **Tools and Services:** Git, Nix, GitHub/GitLab, VSCode, Docker/Podman, Homelabs, Cloudflare, Adobe Illustartor, Adobe Photoshop

PROJECTS

- **PYQs Archive** (Repository & Website)
  (Jan'23 - till date)
  - Objective: A collection of student-contributed previous year question papers for Graphic Era Hill University semester examinations.
  - Website: `https://gehuhaldwani.in/pyqs`
  - Technologies: AstroJs, Python, Cloudflare Workers, GitHub Actions & Pages

- **Simple NCERT** (eLearning Resource)
  (Dec'24 - Jan'25)
  - Objective: A NCERT eBook experience that focuses on accessibility, indexablity, and localization.
  - GitHub Repo: `https://github.com/mglsj/simple-ncert`
  - Website: `https://mglsj.eu.org/simple-ncert`
  - Technologies: Astro, Typescript, WebAssembly, Pyodide, v86

- **Raspberry Pi 3 Kernel** (OS Kernel)
  (Aug'24 - Dec'24)
  - Objective: Multi-programming OS kernel from scratch for Raspberry Pi 3B+, with a FAT 16 File System, GPU rendering, Terminal, etc.
  - GitHub Repo: `https://github.com/mglsj/os_kernel`
  - Technologies: C, Arm Assembly, Make

- **QR Earth** (Mobile Application & Backend)
  (Jul'23 - Nov'24)
  - Objective: An app to promote plastic bottle recycling at GEHU Haldwani Campus.
  - Google PlayStore id: `org.eu.mglsj.qr_earth`

- - Github Repo: `https://github.com/qrearth`
  - Technologies: Python, FastAPI, Dart, Flutter, PostgreSQL, Azure, Redis
- **Visual Graphs** (Web Application)
  (Jun'24 - Jul'24)
  - Objective: A graph algorithms visualizer made with Flutter and Dart.
  - Demo: `https://mglsj.eu.org/visual_graphs`
  - Github Repo: `https://github.com/mglsj/visual_graphs`
  - Technologies: Dart, Flutter, Flame Game Engine, WASM
- **MOS6502 CPU Emulator** (Emulator)
  (Feb'24 - Jun'24)
  - Objective: An interactive flutter and dart based emulator for the MOS 6502 CPU, with code editor and compiler support, memory editor, and instruction disassembler.
  - Github Repo: `https://github.com/mglsj/6502_emulator_flutter`
  - Technologies: Dart, Flutter, VASM, C++
- **BT-P1C0** (IoT)
  (Sep'22 - Dec'23)
  - Objective: An open source vehicle/asset tracker and portal.
  - Github Repo: `https://github.com/BT-P1C0`
  - Technologies: Raspberry Pi Pico, MicroPython, MQTT
- **Map-Haldwani** (Web Application)
  (Nov'20 - Jun'22)
  - Objective: An initiative to map out every road of Haldwani city, on OpenStreetMap. And an interactive web maps app to navigate the city.
  - Github Repo: `https://github.com/map-haldwani`
  - Technologies: HTML/CSS/JS, Mapbox, Mapillary

CERTIFICATIONS

- **Introduction to Networking**
  Nvidia, Coursera *(Mar'25)*
- **Raspberry Pi: Write Your Own Operating System Step by Step**
  Udemy *(Nov'24)*
- **Tiny Machine Learning (TinyML)**
  Harvard University, edX *(Jul'24)*
- **CS50t | CS50's Introduction to Technology**
  Harvard CS50 *(Apr'24)*
- **OM Guru Network Training**
  Humanitarian OpenStreetMap Team *(Mar'24)*
- **CS50p | CS50's Introduction to Programming with Python**
  Harvard CS50 *(Feb'24)*
- **Networking Essentials**
  Cisco Networking Academy *(Dec'23)*
- **CS50x | CS50's Introduction to Computer Science**
  Harvard CS50 *(Nov'23)*
- **LFS101x: Introduction to Linux**
  The Linux Foundation, edX *(Oct'23)*

ACHIEVEMENTS

- **BUILD FOR GEHU 2025**
  1st Rank
  WeCode *(Apr'25)*

- **CS50x Puzzle Day 2025**
  9/9 Puzzles solved
  Harvard CS50 *(Apr'25)*

- **24 Hour Hackathon**
  1st Rank
  Tech Geeks GEHU *(Mar'25)*

- **Certificate of Outstanding Achievement**
  Academics
  Graphic Era Hill University *(Apr'23)*

- **Appathon 2022 (Competitive Programming)**
  1st Rank
  Tech Geeks GEHU *(Aug'22)*

PARTICIPATION

- **HACK ERA CTF | GRAFEST 2025**
  Graphic Era Deemed to be University *(May'25)*

- **Techsprint 48 | GRAFEST 2025**
  Graphic Era Deemed to be University *(May'25)*

- **Code Craft 2025**
  WeCode *(Apr'25)*

- **RVCExIITB CTF**
  RV College Of Engineering *(Jun'24)*

- **Code Crusade 2024**
  GEU IEEE Student Branch *(Mar'24)*

- **OM Guru Network Training**
  Humanitarian OpenStreetMap Team *(Mar'24)*

- **The Art & Science of Hardware Hacking**
  Cyber Security Club, Graphic Era Hill University *(Sep'23)*

- **1st International Conference on Advanced Computing and Information Science (ICACIS-2023)**
  Graphic Era Hill University *(Aug'23)*

- **Global Pitch Fest Competition 2023**
  TiE Dehradun *(Mar'23)*

- **5th Technovation Hackathon (STREPC)**
  Sharda University *(Feb'23)*

- **NAVIKARNAM 2023**
  National Institute of Technology *(Feb'23)*

- **Tech Wizard 2.0**
  Graphic Era Deemed to be University *(Dec'22)*

VOLUNTEERING

- **OpenStreetMap (OSM)**
  (Nov'20 - Present)
  - Active Contributor Associate Member

- **Eco Club GEHU**
  (2023 - Present)
  - Member

- **Humanitarian OpenStreetMap Team (HOT)**
  (2022 - 2024)

- Disaster Relief Volunteer

- **Haldwani Online Sanstha (HOS)**
  (Sep'22 - Mar'23 & Feb'25 - Mar'25)
    - "Annadhara Muhim" Volunteer
    - Distributed food in government hospitals.

- **Roshan Duniya**
  (2021 - 2022)
    - Participated in cleanliness and donation drives.

INTEREST AND HOBBIES

- Maps, History and Geopolitics

- Computers and PC Hardware

- Computer Networking and Home Labs

STRENGTHS

- Leadership skills, Hardworking