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## Education

### Chandigarh University

Aug 2021 – (Expected) May 2025

Bachelor of Engineering, Computer Science; CGPA: 7.84

### St. Thomas School, Indirapuram

2020 - 2021

Class 12, CBSE, PCM with CS; Grade: 84.8%

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## Certifications & Exams

### GATE 2025 - Qualified

Qualified with All India Rank (AIR) **19074** in the Gate 2025 Computer Science and Information Technology exam.

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## Experience

### Research Intern

Jun 2023 – Jul 2023

MARS Lab, Department of CSE, IIT Guwahati

- Implementation and analysis of security wrapper module for Network-on-Chip routers.
- Learned to use Gem5 – architectural simulator – to explore various existing solutions in the domain of multi-core computer architecture.

### Freelance Programmer

Dec 2021 – Feb 2022

Fiverr

- Worked with APIs of various social media platforms such as Reddit, Discord.
- Delivered chat bots with functionality ranging from community management to moderation.

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## Projects

### The Generic Operating System (tgos)

March 2025

*A linux from scratch project for building an operating system based on the linux kernel.*[github.com/laughingclouds/tgos](https://github.com/laughingclouds/tgos)

- Used an existing linux based operating system to essential tools for creating bootable ISO.
- Customized the build process to include only necessary components, improving boot time and reducing image size.
- **Technologies Used:** Bash, Git, GCC, Make, Windows Hypervisor

### MonkeyGo (Programming Language)

March 2024

*An interpreter for the Monkey programming language, implemented in Go, inspired by Writing an Interpreter in Go by Thorsten Ball.*[github.com/laughingclouds/monkeygo](https://github.com/laughingclouds/monkeygo)

- Built a complete lexer, parser, and evaluator for a dynamically typed scripting language.
- Implemented first-class functions, closures, arrays, hash maps, and a REPL interface.
- **Technologies Used:** Go, Git, VS Code, Terminal, Recursive Descent Parsing

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## Skills Summary

**Languages:** Python, C/C++, Java, JavaScript**Frameworks:** flask, react, gem5**Tools:** Bash, Shell, Scripting, Git, GitHub, Docker, GitLab**Platforms:** Linux, WSL, Visual Studio Code, IntelliJ IDEA**Frameworks:** flask, react, gem5**DBMS:** MySQL, PostgreSQL, SQLite