



KARAN GUPTA

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DOB: December 12, 2003

Address: 188, Sukhdev Vihar, New Delhi-25



Education

INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY

B. Tech (Computer Science and Applied Mathematics)
2021 - (Present)

CGPA: **8.6**
(till 4th Semester)

THE INDIAN SCHOOL, NEW DELHI

CBSE (class12)
2020 - 2021

Percentage: **98.3**

THE INDIAN SCHOOL, NEW DELHI

CBSE (class 10)
2018 - 2019

Percentage: **93.6**

Skills

Expertise Area	Data Structures and Algorithms, Python applications, Web Development, Game Development
Programming Language	C++, Python, Java, C, JavaScript,
Tools and Technologies	HTML, CSS, MySQL, Git, Linux, LibGDx, Figma, Django, Firebase, Shell Scripting, Android Studio, Visual Studio code
Technical Electives	Advanced Programming, Operating Systems, Data Structures and Algorithms, Analysis and Design of Algorithms, DBMS, Computer Organisation, Discrete Structures

Experience

Summer Research Intern @IIIT- Delhi

Guide: Prof Vivek Kumar (IIIT-Delhi)

(May 23 - July 23)

- Accomplished project enhancing Linux's migrate_pages system call, optimising transfer efficiency by 50% in multi-NUMA node system. During process runtime, the system-call migrates pages from one NUMA node to another. Developed multi-threaded daemon for automated batch page migration of pages of the target process.
- Tools and Technologies: Linux, C, Libnuma library, multi-threading, bash scripting.

Projects

TANK STARS GAME (Java, libGDX, Box2D) [[link](#)]

- Event-driven 2D multiplayer game, focusing on Objected-Oriented Programming, in which the players engage in head-to-head tank battles over different terrains and use strategies to outsmart the opponent. Implemented dynamic controls, captivating sound effects, and seamless

(Oct 22 - Dec 22)
Team Size- 2

UI/UX.

- Used libGDX for the gui and Box2D as the physics engine.

(Jan 23 – May 23)

Team Size- 2

Ksheer (MySQL, Python, Django, Html, CSS, JavaScript)[[link](#)]

- Designed a web-based database management system for a dairy company covering all the facilities from procuring raw materials to billing customers.
- The web application provides an interface for manufacturers, sellers, and farming unions.
- Used MySQL to manage the data and Django for the backend and HTML, and CSS for the front end.

(Oct 22 – Nov 22)

Team Size- 1

LINUX SHELL (C, Linux) [[link](#)]

- Made a custom bash shell which has a custom implementation of some of the commands in the default kernel. Used multithreading and multi-processing for developing the commands.

GMAIL API (Python, Gmail API, Notion) [[link](#)]

(April,22-April,22)

Team size- 3

- Developed a Python application that uses Gmail API to segregate emails by search or by sender in the note-making application Notion and also send bulk mail. Notion keeps track of all the important emails.

SNAKE AND LADDER GAME (Python, Tkinter) [[link](#)]

(April 22 – April 22)

Team Size- 3

- Designed the snake and ladder game using Python, Tkinter and PyGame with an emphasis on Object-Oriented Programming
- The GUI was designed using Tkinter and the sounds and animation were done using PyGame.

Positions of Responsibility

- Member of 65th Square-Chess Society of IIITD (PR and Publicity Team).
- Operations Team Member, Odyssey (Cultural Fest of IIITD) 2023
- Organising Team member of Chess Tournament in Esya (Technical Fest of IIITD) 2023

Awards and Achievements

- International Quant Championship 2023 global rank 161 round 1, global rank 405 round 2 (Team-Borzo)
- Worldquant Gold level participant-Received offer for part-time Research Consultant at Worldquant
- Codeforces rating-1292(Id: KG_9021)
- Codechef highest rating- 1717(Id: karan_9021)
- Google Hashcode 2022- 4480
- School 12th Board topper in PCM
- JEE Advanced Rank: 4302

Interests and Hobbies

- Competitive Programming
- Chess
- Reading Books
- Basketball

Declaration: The above information is correct to the best of my knowledge.

Karan Gupta

Date: August 28,2023