

Surbhit Thakur

Delhi surbhit.thakur@gmail.com 9650171042 [LinkedIn](#) | [Leetcode](#) | [Codechef](#) | [Github](#)
[valholl.netlify.app](#)

Education

St. Margaret Sr. Sec. School
10th GPA: 9.6 - 2017

St. Margaret Sr. Sec. School
12th Non-medical (Physics, Chemistry, Math) Per: 90.8% - 2019

Bhagwan Parshuram Institute of Technology
B. Tech. Computer Science GPA: 9.29 (overall till 4th sem) 2020 - Present

Tech Stack

Programming languages:	Python, C++, Java, C, bash
Web Technology:	(HTML, CSS, Javascript) p5.js, React.js, Node.js
Database:	SQL
Linux:	Comfortable with *nix systems and command line tools
Security:	OWASP, Reverse Engineering
Miscellaneous:	Data structures and Algorithms, System design, Writing

Projects

[Neural Network](#)

A neural network written in C. Based on the Perceptron machine. The neural network can differentiate between rectangles and circles. The system has only one layer of neurons hence it is capable of differentiating objects in only two categories. Simple algorithm is used to generate rectangles and circles for training the model.

[Game Engine](#)

A Game Engine written in C++. The Engine is a wrapper around the WinAPI for console. It contains a sprite generator which uses the CMDGameEngine header file itself to create sprites. It contains functions for rendering circles, triangles and various geometric shapes. It is a multithreaded application.

[Mini-Projects](#)

Collection of Mini-Projects, written in various languages C, C++, Python. The various programs are

- WebScraper: can be used to download images from a url specifically for the brave web browser.
- ImgViewer: Replicates and renders a scaled down version of an image in the terminal.
- 3D space renderer: A 3D space generated using ASCII characters in the terminal, the end goal is to create a FPS shooter.
- Pong: a pong game written in python using the turtle library.

[NGO Website](#)

Website frontend made for an NGO made with react and tailwindcss.

Publications

Scala Context Bound	Article	February 2023
Create a Telnet client using python asyncio lib	Article	March 2023
The seven Bridges of Konigsberg	Blog	October 2022
Solving Tower of Hanoi with the rhythm of counting of binary numbers	Blog	August 2022

Certifications

Foundations of Operationalizing MITRE ATT&CK	Attack IQ	September 2022
Using Python to Access Web Data	Coursera	September 2022
Open Source Software Development Methods	Coursera	August 2022
Security Governance and Compliance	Coursera	August 2022
Software Development Processes and Methodologies	Coursera	August 2022