

# Personal Projects

1. Web page Gallery
2. English Vocab Quiz
3. Graphics Algorithms and Computer Games
4. Visualisation of algorithms
5. eCommerce (PHP) Internshala
6. Neural Network and Computer Vision
7. Delhi Metro App (old archive)

## 1. Web page Gallery

Build web page using C++ : not aware of existence of languages like PHP and JavaScript for dynamic web pages due to difficulty in the internet accessibility at school and home. (Class XII - December)



## 2. English Vocab Quiz

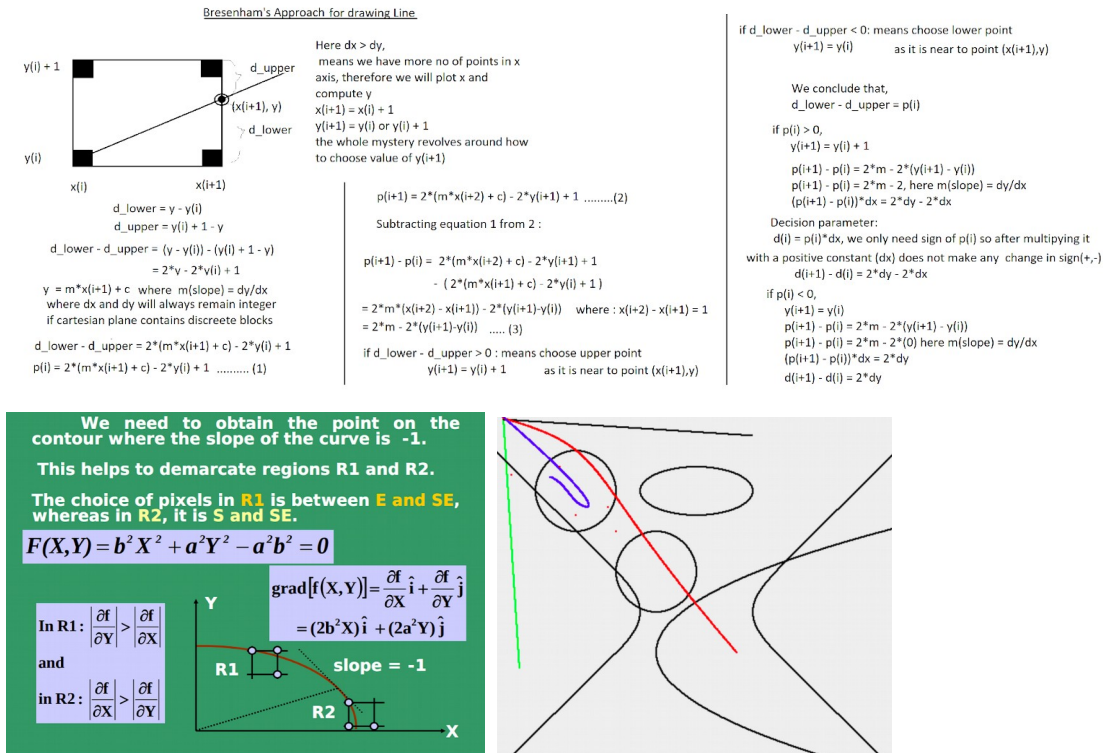
Created for Facebook group to help people improve their vocabulary.



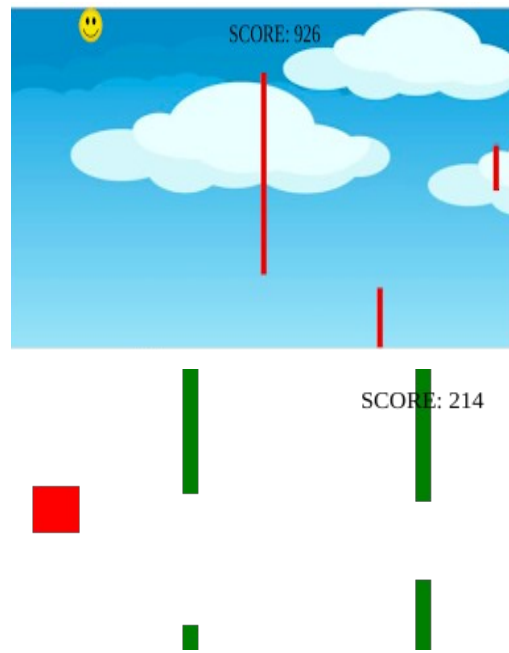
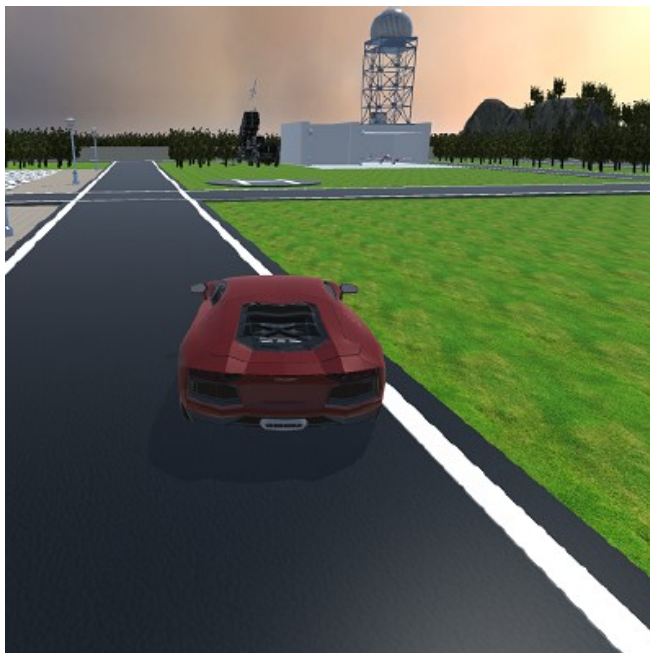
### 3. Graphics algorithms for Hyperbola, Parabola

Derived, Invented and implemented algorithms using first order mid point approach and partial differential equations after taking inspiration from ellipse drawing algorithm.

\* Later turned out as not useful approach against Bézier, B-Splines curves.



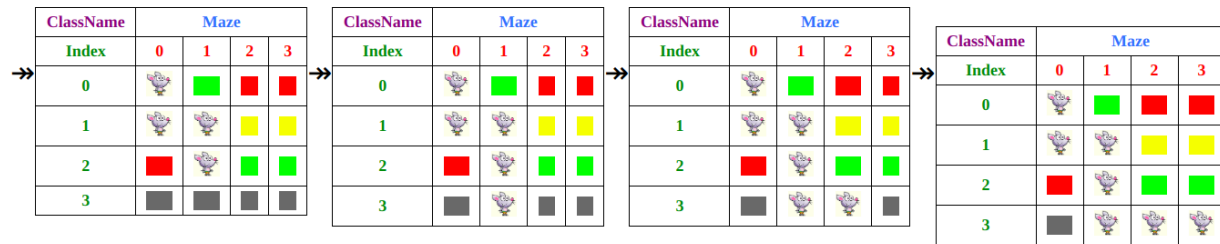
Computer Games : 2D (Using JavaScript) and 3D (Using Unity3D)



## 4. Visualisations of algorithms

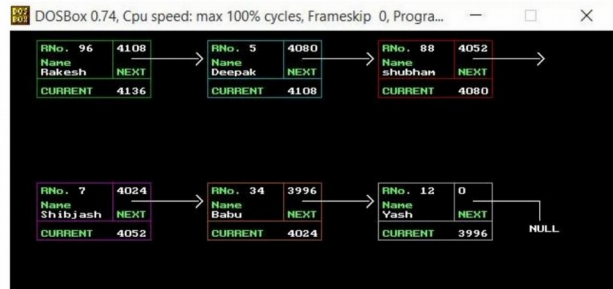
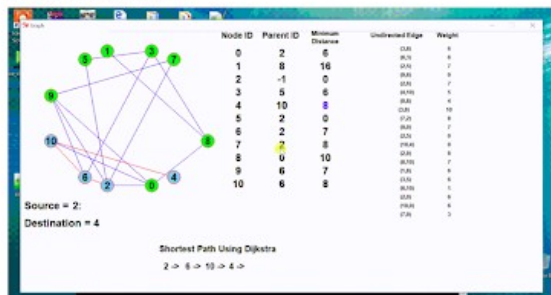
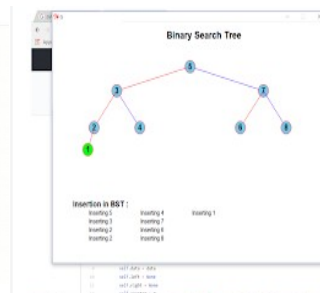
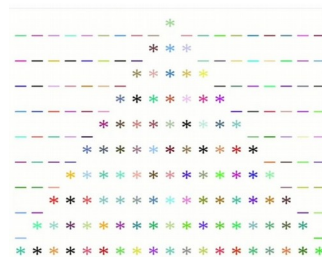
Visualize JS (JavaScript+HTML) , C++ Linked List (GUI), Python (Graphs,Trees)

### BACKTRACKING

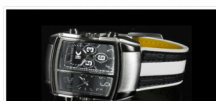
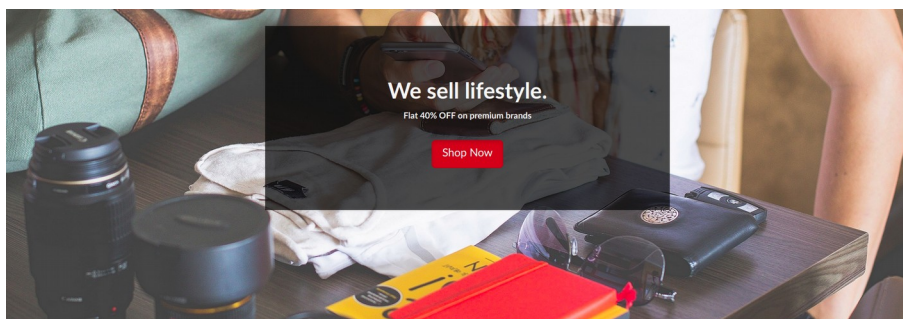


The Solution Path is :

ClassName	Array			
Index	0	1	2	3
0				
1				
2				
3				



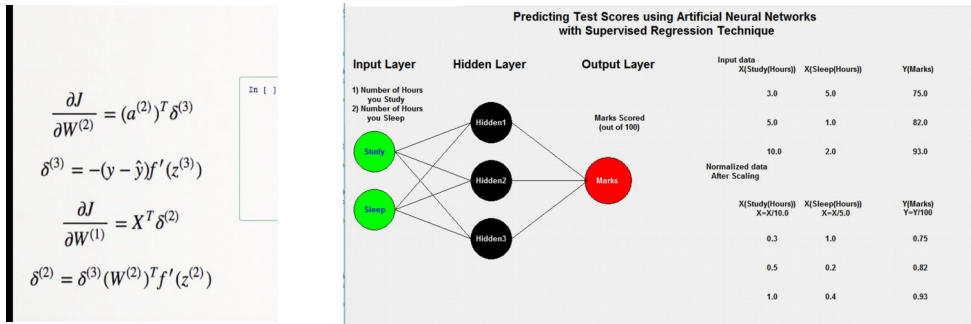
## 5. eCommerce (PHP) Internshala Assignment





## 6. Neural Network :

Derivation and implementation of Neural Networks from scratch.



## Computer Vision

Thug Life



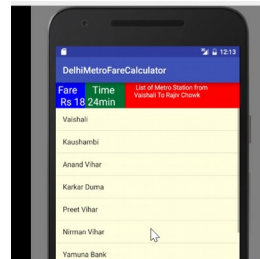
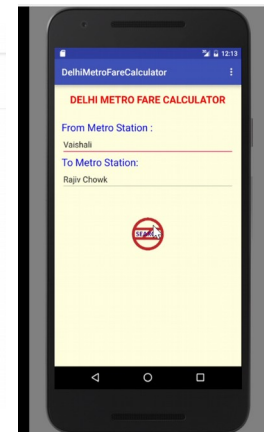
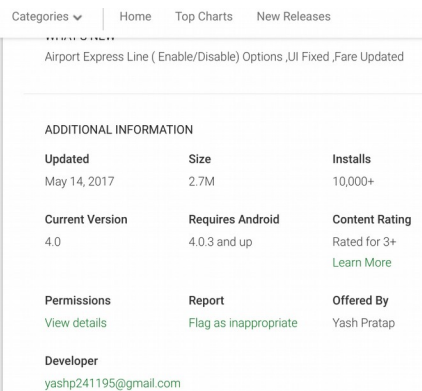
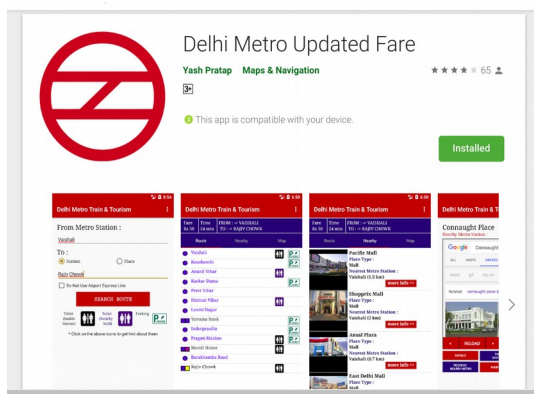
Thug Life



Motion Detection using OpenCV build pass



## 7. Delhi Metro (old archive)



		D	D	V	E	F	S	P	K	
Stations	Ditshad Garden	Jhili mil	Manrover park	Shahdara	Welcome	Sedlam Pur	Shastri Park	Kashmere Gate		
1										
2	Ditshad Garden	0	8	11	11	12	13	15	16	
3	Jhili mil	8	0	8	11	10	12	15	15	
4	Manrover park	11	8	0	0	10	12	15	15	
5	Shahdara	11	11	0	0	0	11	13	15	
6	Welcome	12	11	11	0	0	8	11	12	
7	Sedlam Pur	12	11	11	11	0	0	8	12	
8	Shastri Park	15	15	15	11	11	0	0	8	
9	Kashmere Gate	15	15	15	15	12	13	11	8	
10	Tis Hazari	15	15	15	15	15	13	11	11	8
11	Pul Bangash	15	15	15	15	15	15	13	11	11

A lot more quick projects done in order to explore computer science