CS 478
Project Description
Delaunay Triangulation In 2D

Gürkan Gür
21602813
# Table of Contents

- **Project Description**  
  3
- **Team**  
  4
- **References**  
  5
Project Description

A triangulation is a subdivision of an area into triangles. The Delaunay triangulation has the property that the circumcircle of every triangle does not contain any points of the triangulation. The Delaunay triangulation is the dual structure of the Voronoi diagram.

In this project two Delaunay Triangulation Algorithms, Randomized Incremental Algorithm and Plane sweep algorithm will be implemented. I plan to use Webgl as the main framework. Various data sets will be taken from [1]. Number of points will be editable. Zoom in/out, rotate and translate functions on the front end will be available. Different numbers of points (100 and up to 1,000,000) will be tested and the performance of the application will be reported. Steps of the algorithms will be shown visually in the runtime of the application. The application and the data sets will be on 2d.
Team

Gürkan Gür - 21602813 - gurkan.gur@ug.bilkent.edu.tr
References