

## **1. Introduction**

Our software is designed for the purpose of solving puzzle consisting of irregular shape onto a designated frame. The software aims to find the most efficient way to solve the puzzle within a certain duration.

For this software, to match each piece, we used corner detection method where every piece is being approximated with a polygon.

## **2. Software Details**

### **2.1 Technical Specification**

For this software, we used Python language, a lightweight yet efficient programming language. Furthermore, Python language supports multithreading features. The version used is Python 3.5.2. The NetBeans IDE 8.1 is also used for editing purposes.

### **2.2 Requirement**

For functional requirements, whenever the software receives a set of input i.e. the puzzle pieces, it shall arrange the pieces so that the pieces fits into the frame.

The non-functional requirements would prevent any invalid input based on the pre-defined conditions and ensures no error occur during runtime.

### **2.3 Performance goals**

We aim to minimize the processing time by applying multithreading in our implementation where a single task is divided into smaller tasks. The software will be able to complete the puzzle at the minimum time possible.