

Each member picked one different aspect of Matrix Multiplication and did the respective work related to that. This included creating the code, testing the code, and researching the algorithm to be able to present the information in our slides. Eli did the original Strassen's method for matrix multiplication on square Matrices that are powers of 2. Connor did matrix multiplication for non-square matrices that follow the  $[n][m]$   $[m][p]$  pattern for data, while using Strassen's method as a base point for solving it. Kiran did Winograd's method for solving matrix multiplication which is a faster method that is based upon improving the algorithm that Strassen made. In addition, Kiran and Eli compared their two methods by using the same testcases and compared the runtimes for the methods.

The specific work is as follows:

Eli: StrassensMatrixMultiplication.java, SquareTestcases.java, Slides in the PowerPoint relating to Strassen's method.

Kiran: CoopersmithWinograd.java, SquareTestcases.java, Slides in the PowerPoint relating to the CoppersmithWinograd method.

Connor: Non\_Square.java, Non\_Square\_Testcases.java, Slides in the PowerPoint relating to non square solving of matrix multiplication.