## Senior Capstone 2016 - Image Mosaic - Veishea Grebin

## Array Contents and Struct Tile

tileNumber $=($ number of tiles wide $) \times($ number of tiles high $)$

Tile \begin{tabular}{|ll|}

\hline \multicolumn{1}{|c|}{| red | avg. red value |
| :--- | :--- |
|  | green |
| blue | avg. green value |
|  | avg. blue value |} <br>

\hline
\end{tabular}

originalImgarray - array of images, original image chopped up

targetImage - array of tiles, has the average red, green and blue values corresponding with the images in the array above
tileImages - array of uploaded tile images
tileImagesColor - array of tiles, has the average red, green and blue values corresponding with the images in the array(tileImages) above
generation - a multidimensional array of image numbers, an array of 40 pointers to the 40 child arrangements

$\leftarrow$ Array size of tileNumber
childrenScores - the total score for each child in the generation $($ size $=40)$
bestMatches - childrenScores ordered from best scores to worst score; has the child number in the first column and the score in the second column
childrenTileScores - a multidimensional array of scores for each tile in each child

indiviChildBestMatches - a multidimensional array that has 3 columns and the number of tiles as the number of rows; it has data for one child at a time


## image number

image score
location of image in that child

