

Avery Peiffer

ECE 2390 – Fall 2021

Problem Set 4 Report

TEXT RESPONSES

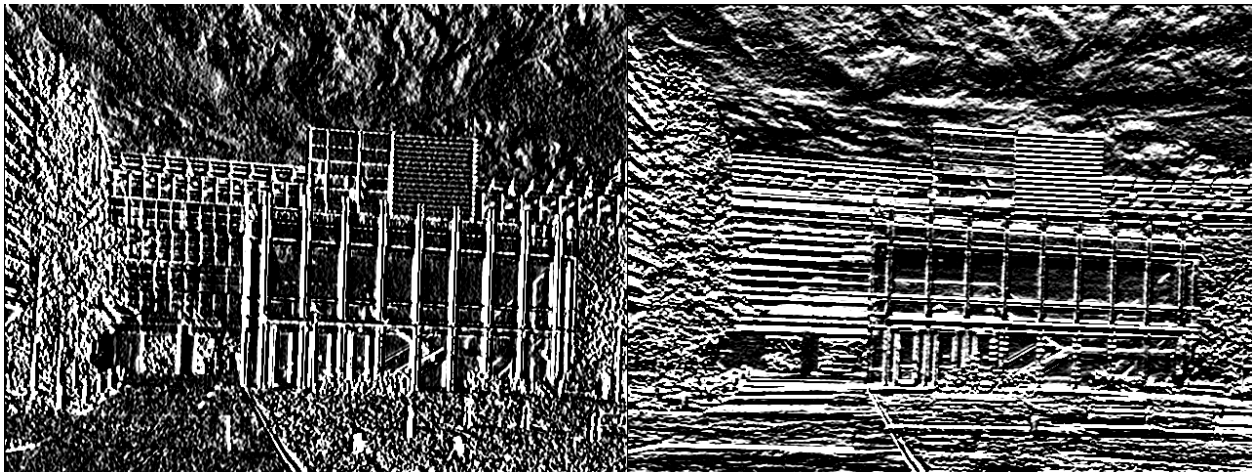
1c: The corner detector seems to do fine generally, but it does miss some points that seem like obvious corners. In the transA/transB pair, for example, the corner detector seems to miss some points at the corners of the building as well as corners between the grass and the sidewalk. It is possible that the cornerness scores of these points do not meet the threshold I set, which is 5 * the cornerness average. It is possible that using a threshold of the top 1-2% could have been better for these specific points. However, the corner detector seems to be behaving correctly in the general case.

3a: The best translation vector was $[-204, -35]$. This vector resulted in a consensus set that contained 25.95% of the matches.

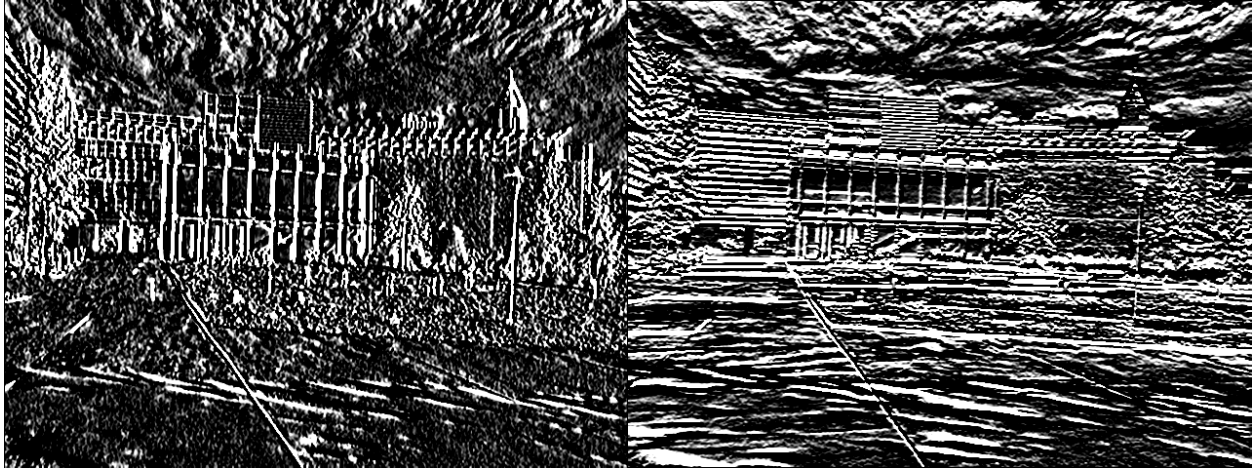
3b: The best transform matrix was $\begin{bmatrix} -.0735 & .1057 & 229.89 \\ -.1057 & -.0735 & 227.79 \end{bmatrix}$. This transform matrix resulted in a consensus set that contained 52.00% of the matches.

IMAGE OUTPUTS

Ps4-1-a-1.png



Ps4-1-a-2.png



Ps4-1-b-1.png



Ps4-1-b-2.png



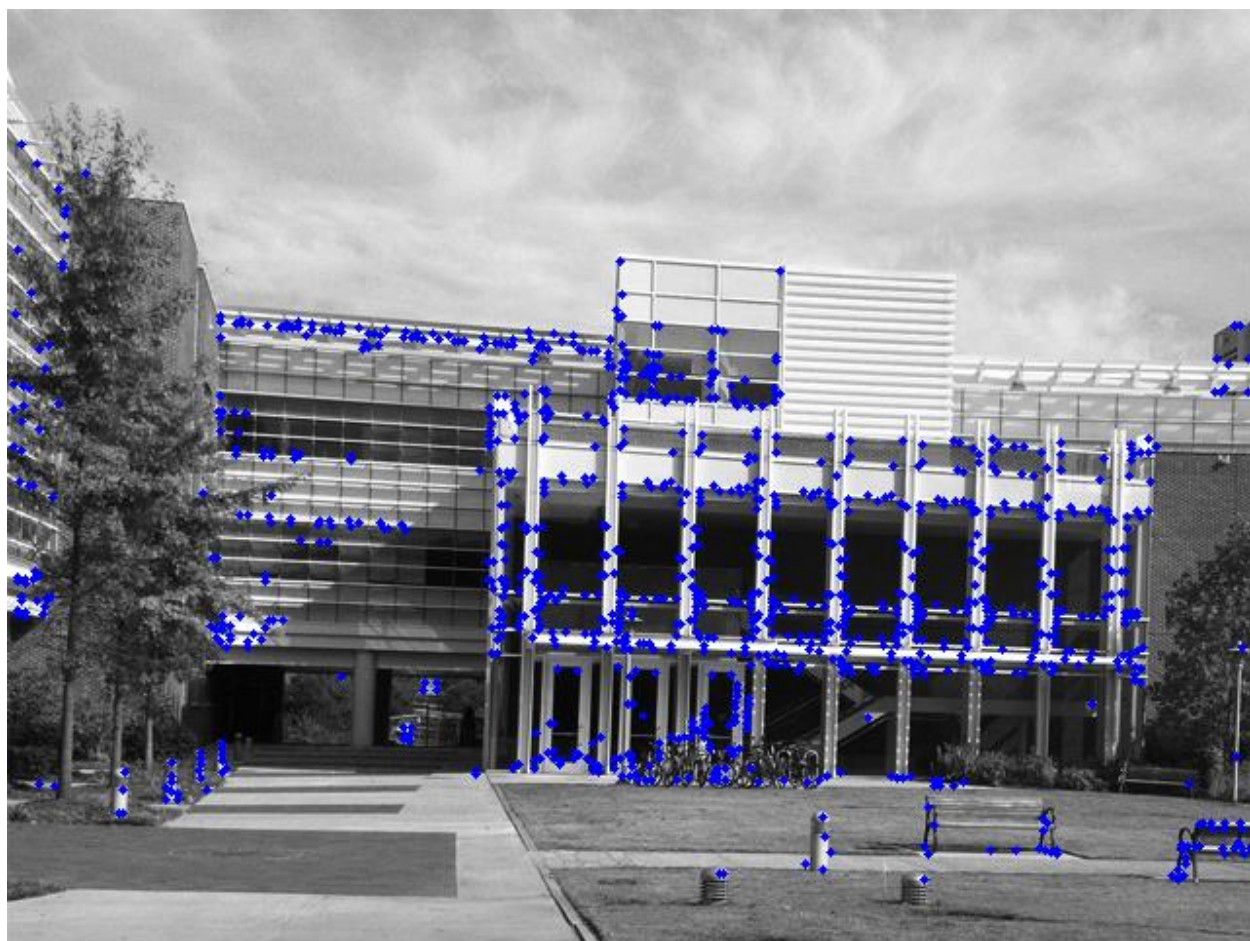
P4-1-b-3.png



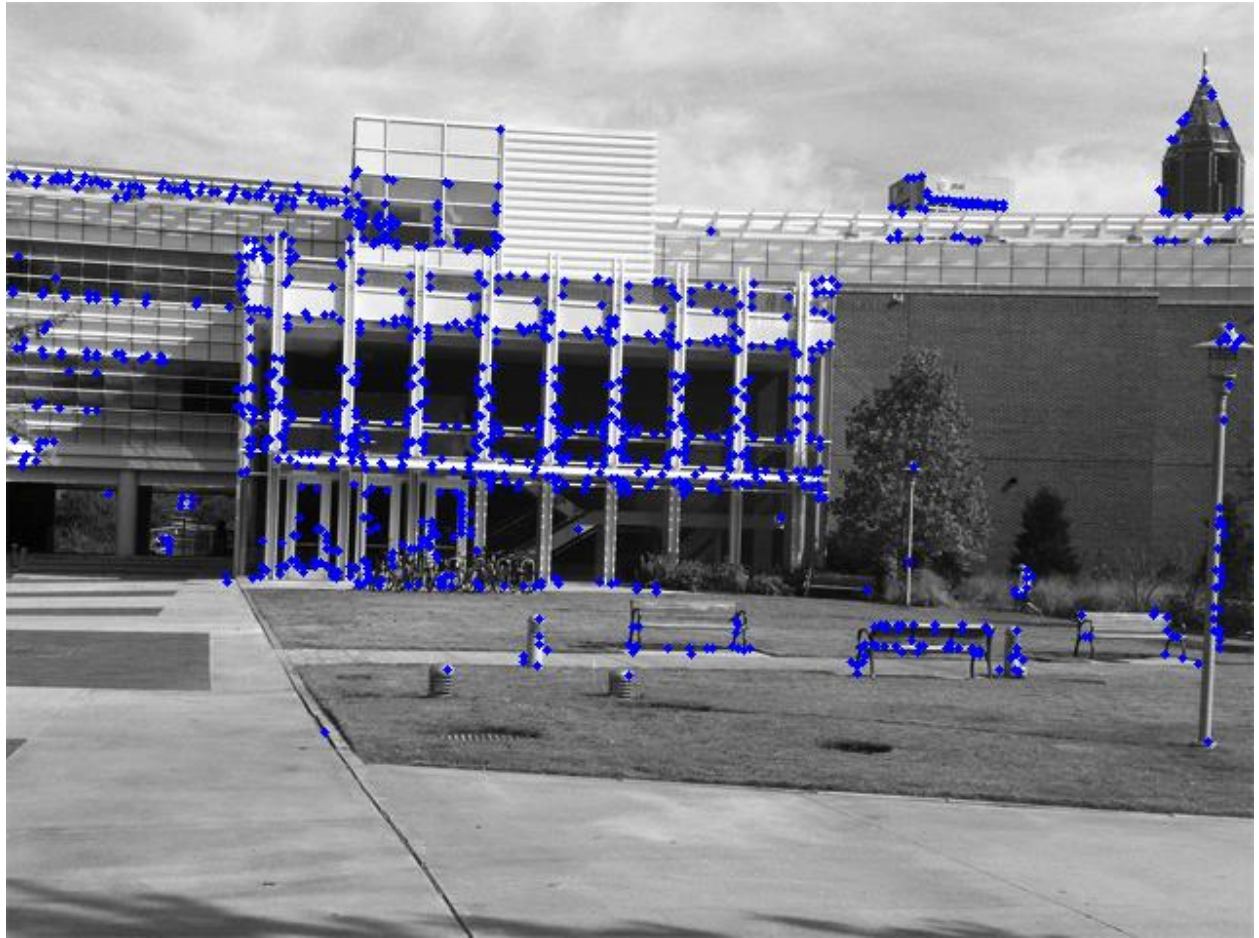
Ps4-1-b-4.png



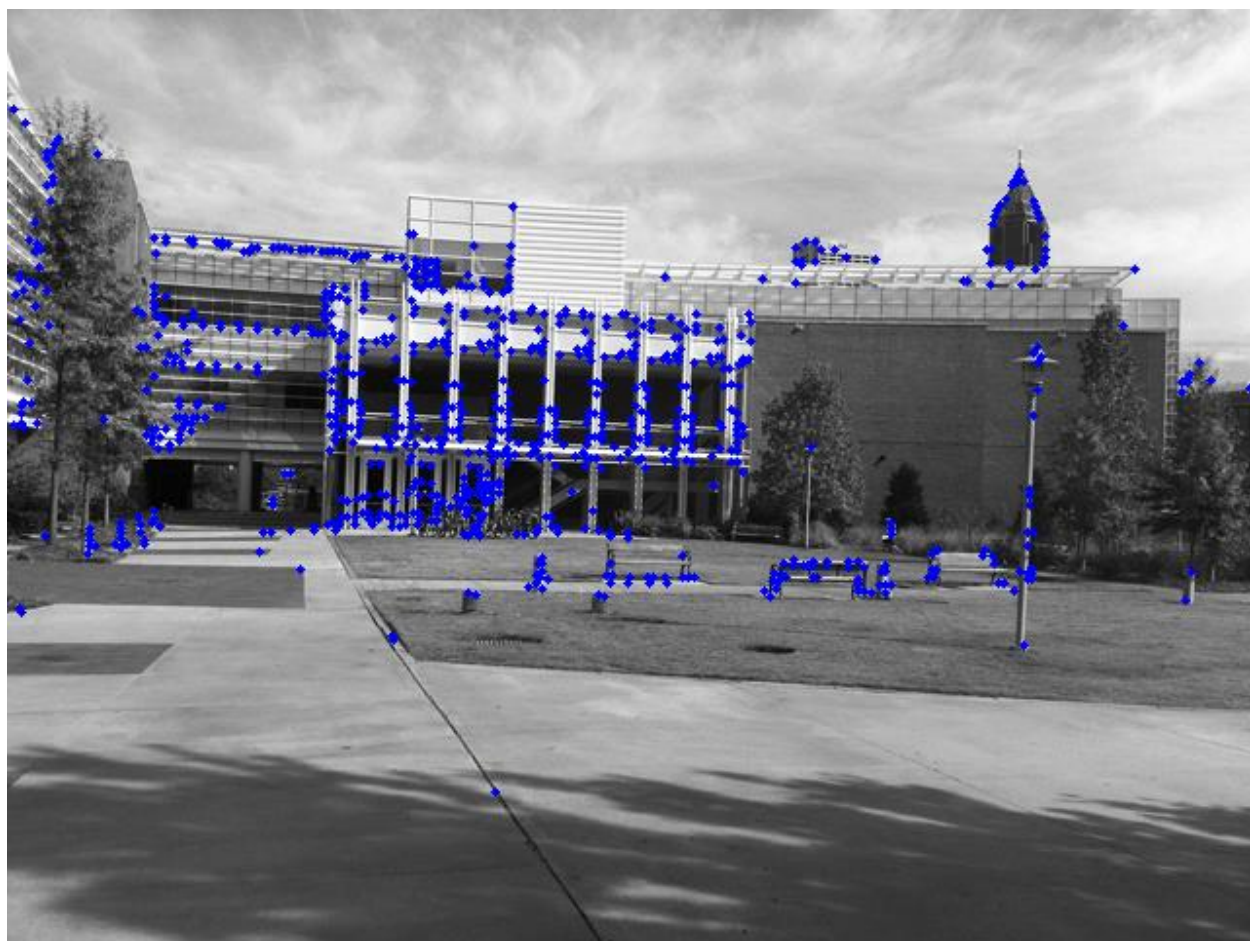
Ps4-1-c-1.png



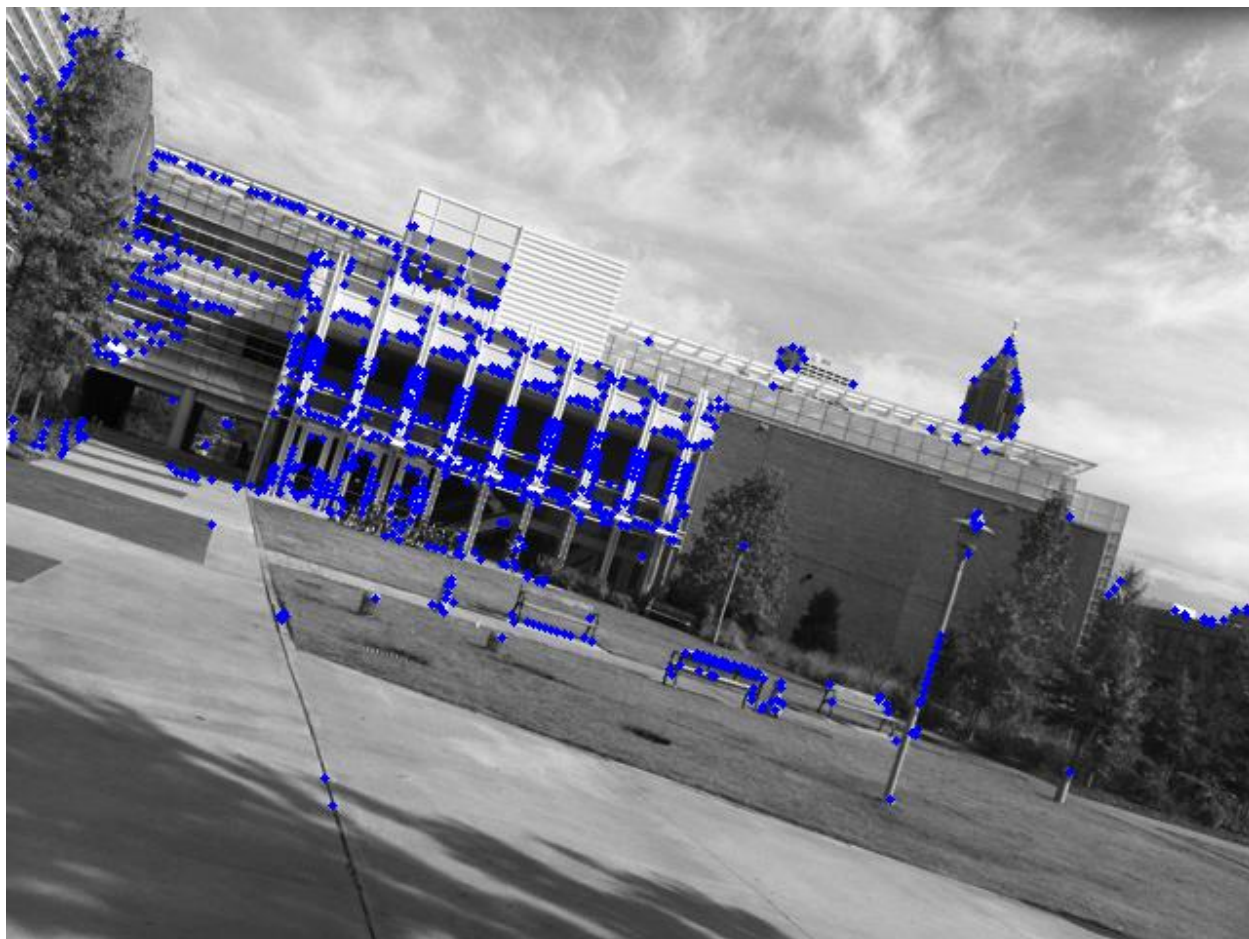
Ps4-1-c-2.png



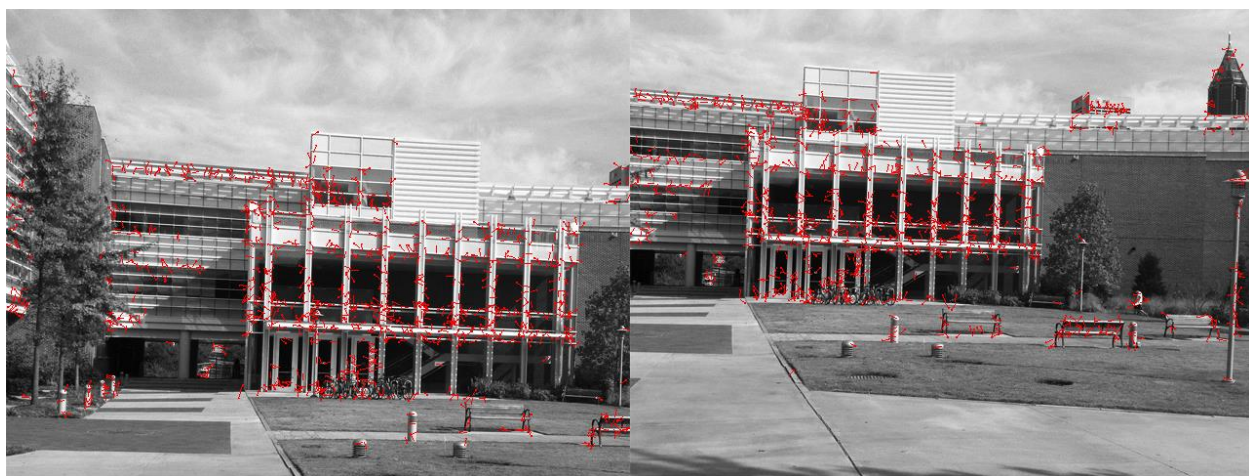
P4-1-c-3.png



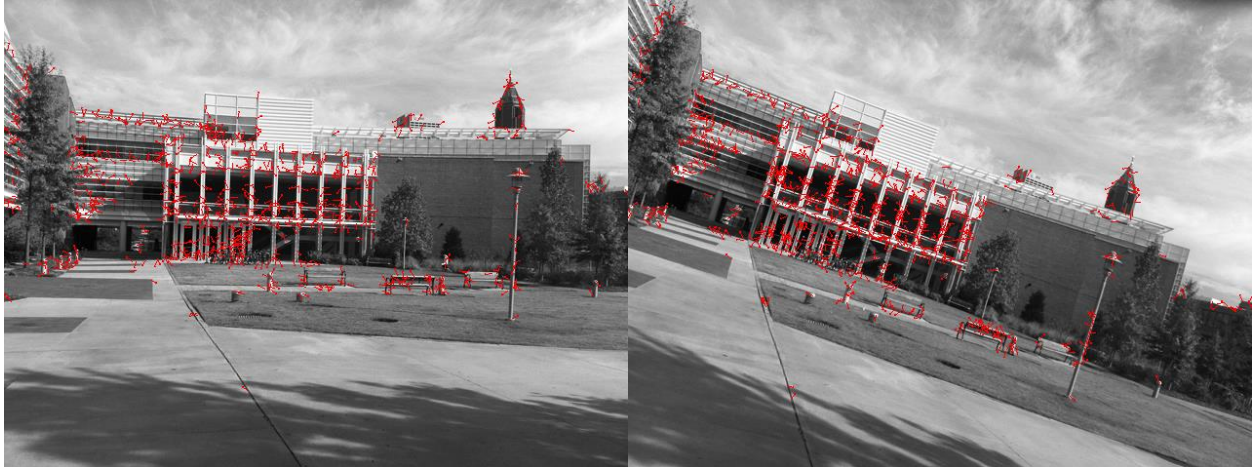
Ps4-1-c-4.png



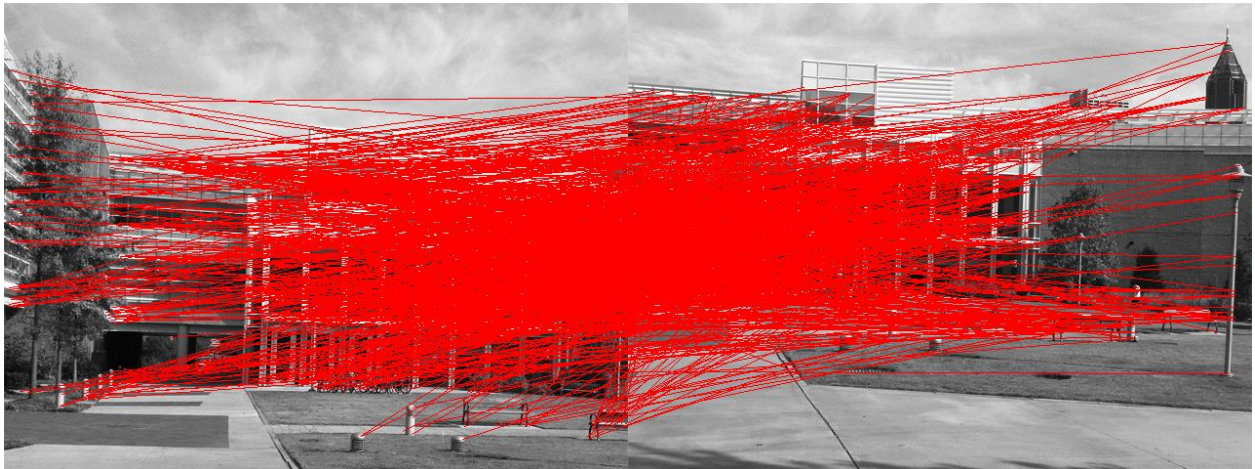
Ps4-2-a-1.png



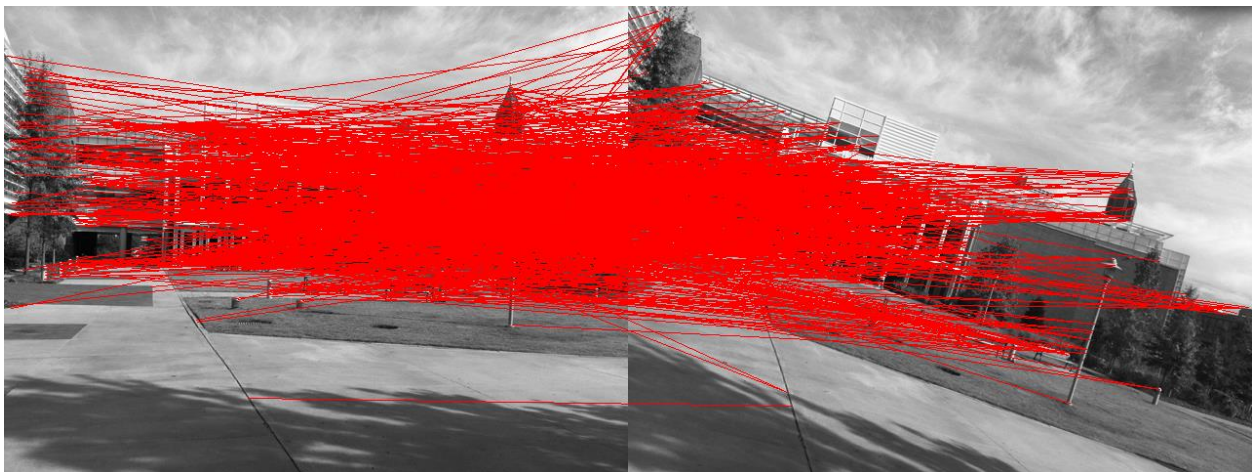
Ps4-2-a-2.png



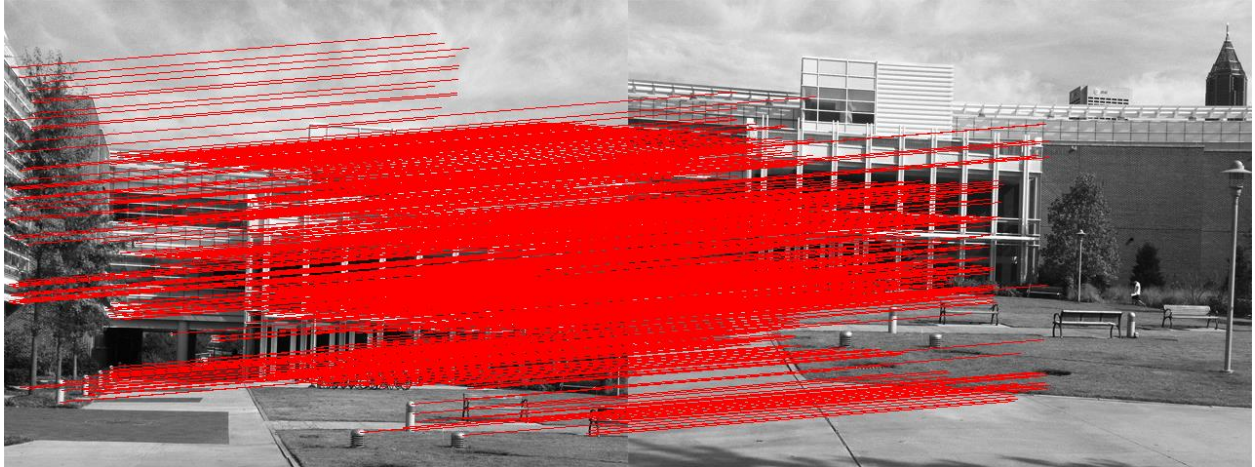
Ps4-2-b-1.png



Ps4-2-b-2.png



Ps4-3-a-1.png



Ps4-3-b-1.png

