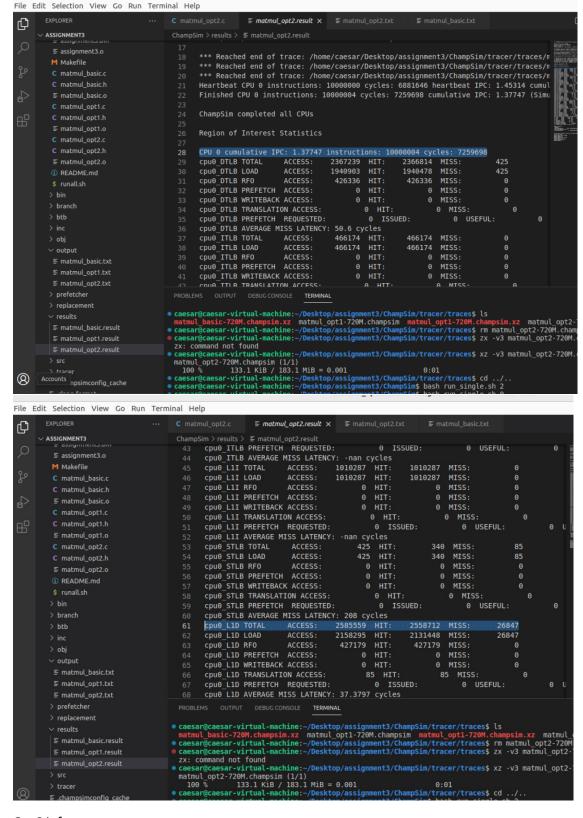
OCPEN411 Assignment3 Report

Sizhe Yan 22164982



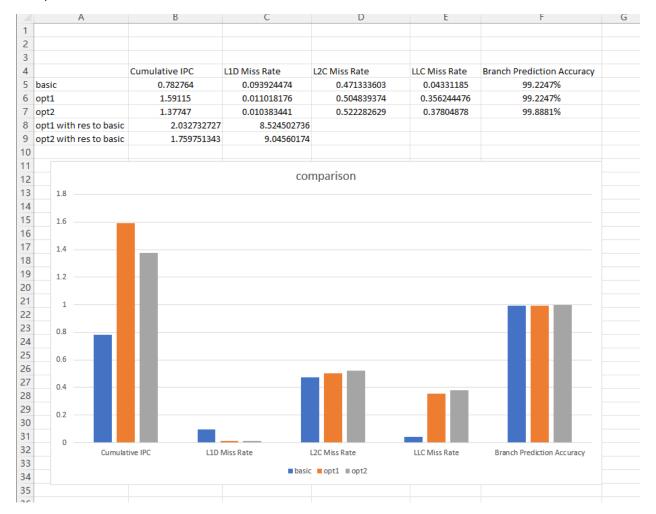
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Opt1 info



Opt2 info

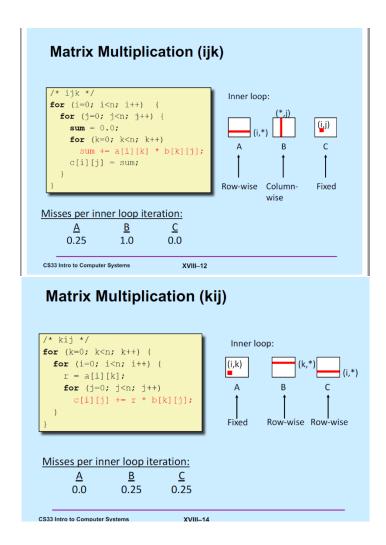
Comparison



OPT1:

OPT1 analyse the pattern of the matrix multiplication of the original code. To increase the row-wise special locality, the change is from the logic of first picture to second. With reference to

https://cs.brown.edu/courses/cs033/lecture/18cacheX.pdf



OPT2:

OPT2 is based on OPT1 with another buffer called temp, OPT2 is with 2 loads 1 store instructions per loop. The idea is to use a buffer called temp to generate the result of matrix b, as it is in the loop of "k" and we are adding k for each loop, thus, this action is with special locality to increase the accuracy of prediction