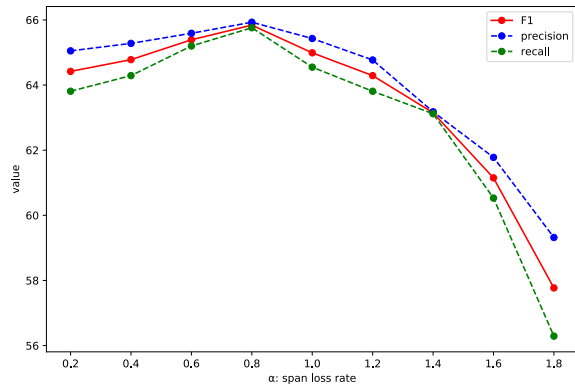# A The α in Obejective

Figure 2: The F1, precision, recall in α between 0.2 and 1.8 in 0.2 intervals on NPCMJ. C is 2.

To investigate how the α of the objective function in Equation 9 for weighting classification loss affects the ZP identification task, we changed α between 0.2 and 1.8 in 0.2 intervals. Figure 2 shows the result of F1, precision, recall with α changes on NPCMJ.

As presented in Table 2, the dataset is highly imbalanced in that only a fractional number of ZP instances appeared in the training data when compared with non-ZP instances , and this imbalance has caused the F1 value to peak on the side of $0 < a < 1$ in Figure 2, that is, when the model reflects the ZP classification error than the argument span error.