CHATBOT 分享

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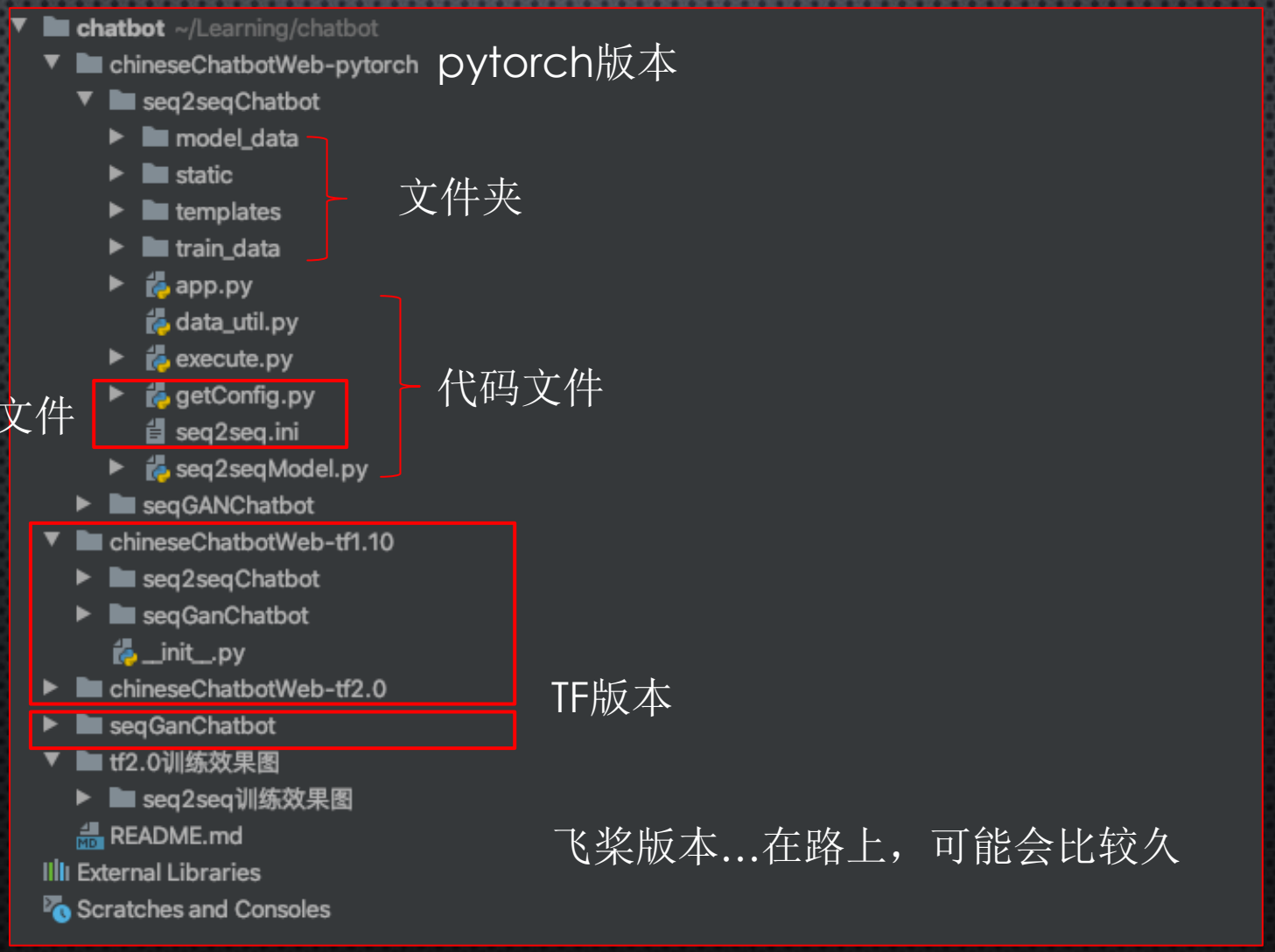
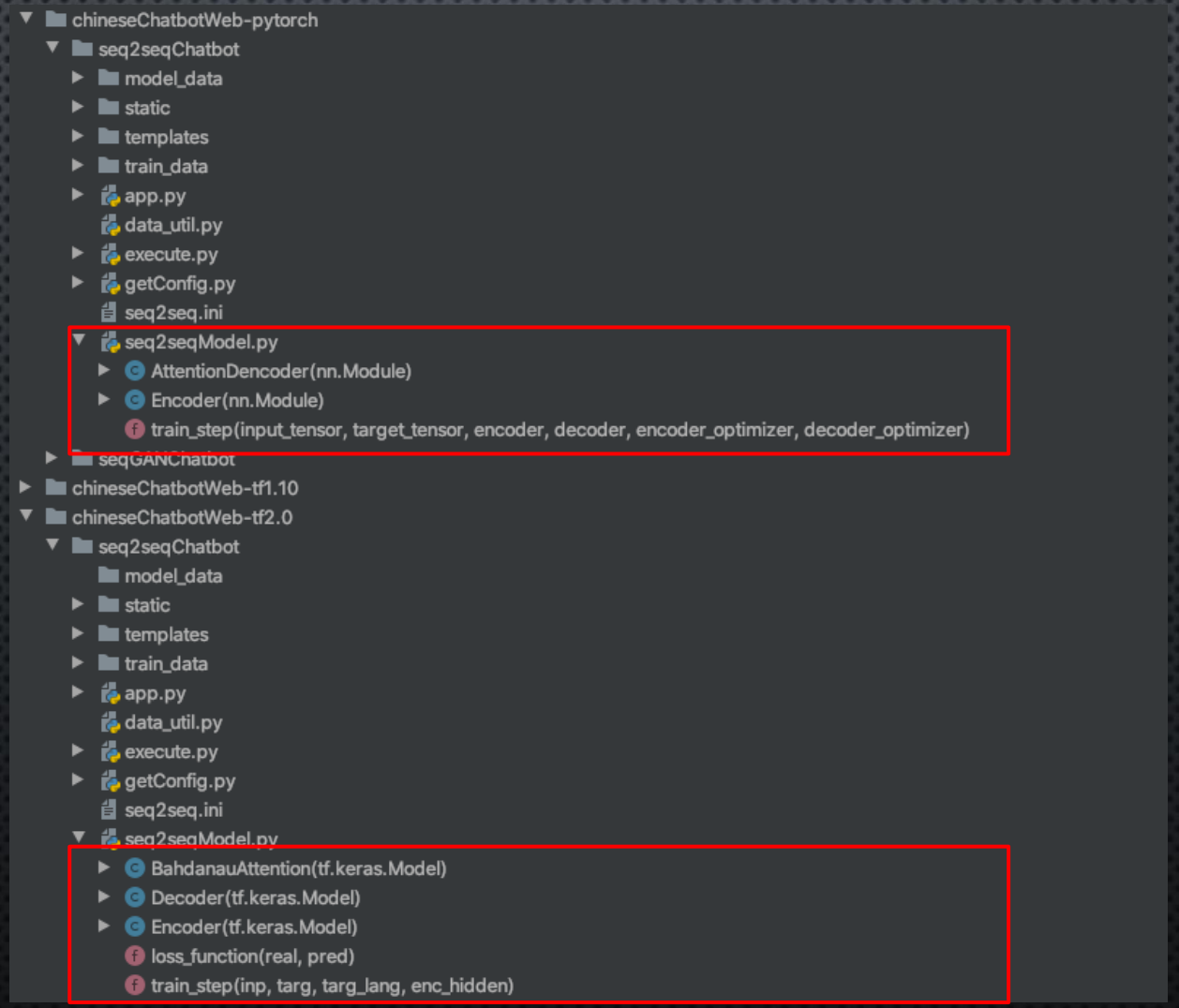
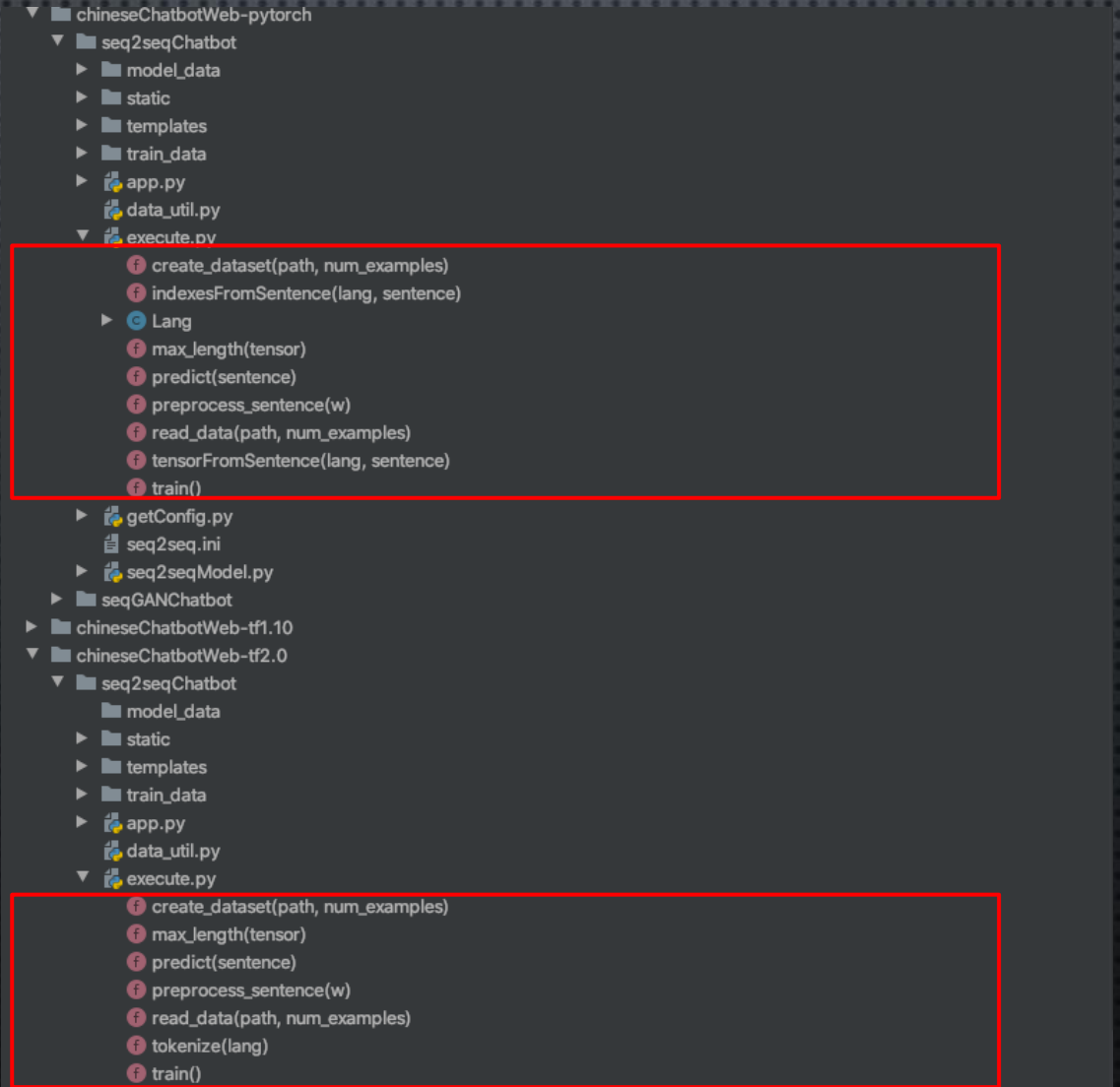
chatbot项目工程简介



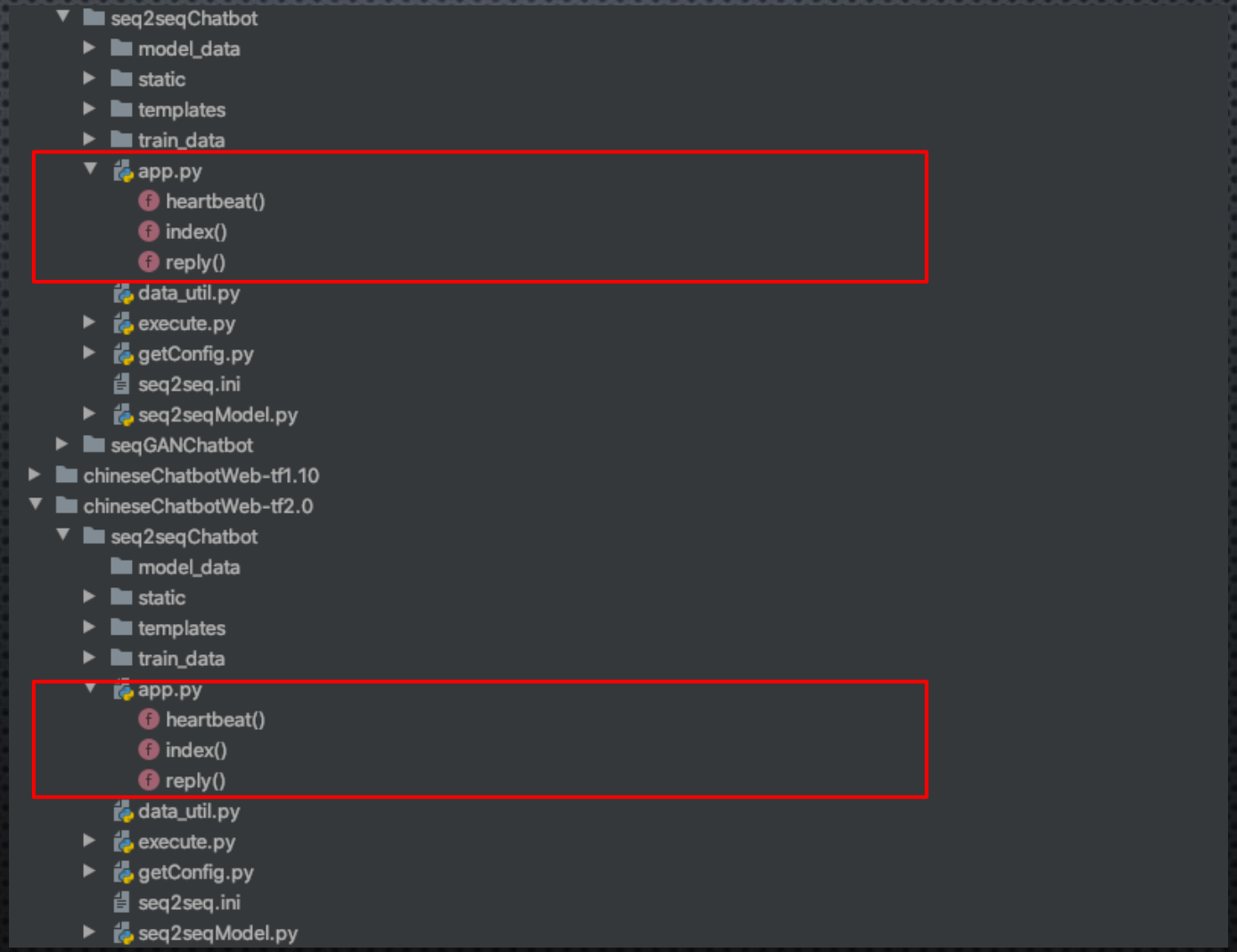
核心模块介绍 Model=encoder+attention+decpder+loss



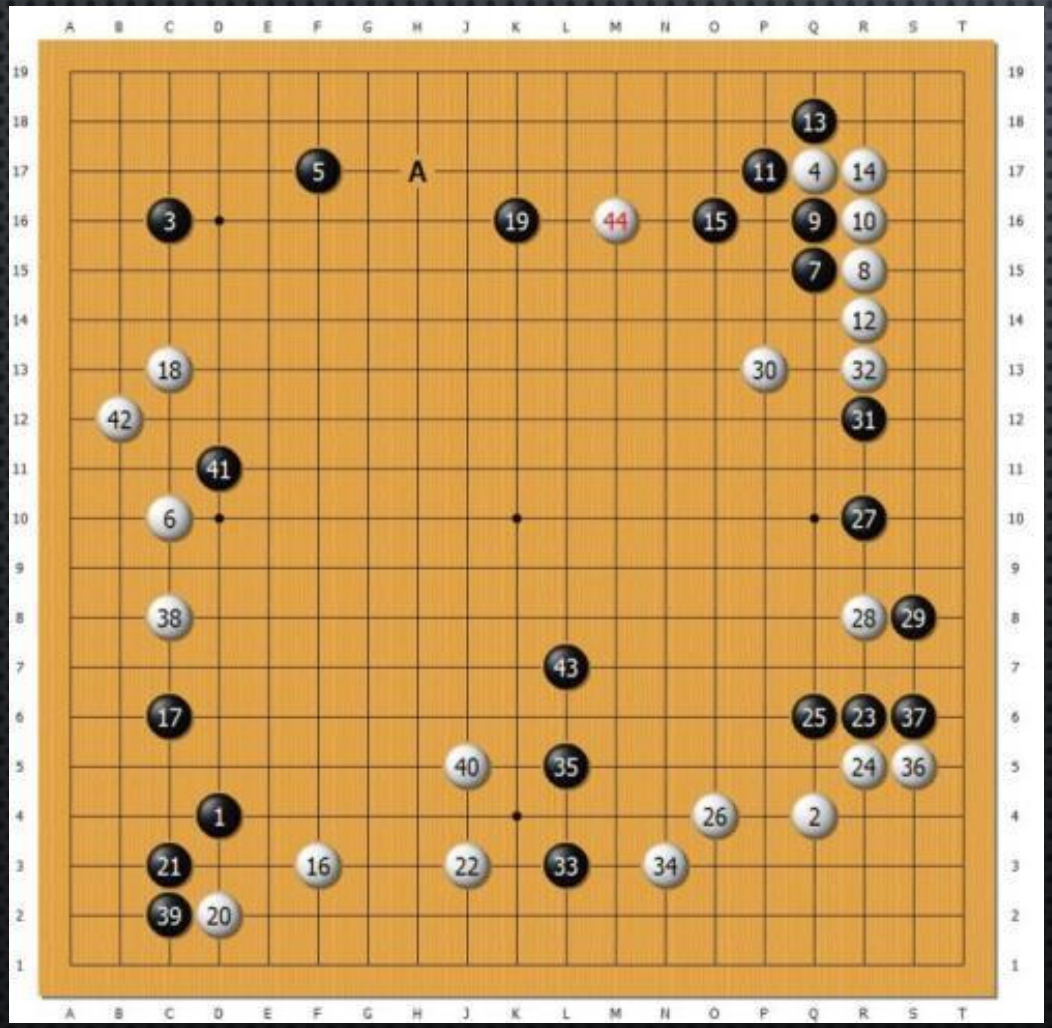
核心模块介绍 execute=create_data+preprocess_sentence+tokenize+train+predict



核心模块介绍 app=heartbeat+index+reply

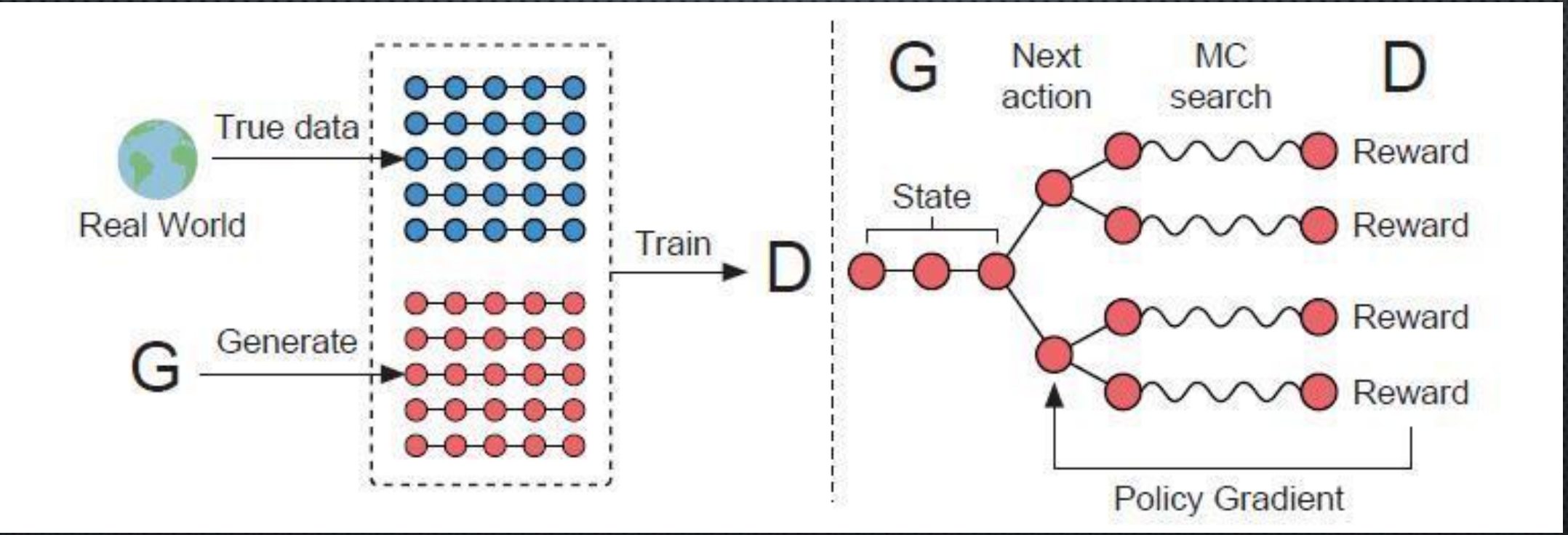


SeqGAN版本分享：围棋和自然语言一样都是离散的，那么围棋可以，自然语言也可以。



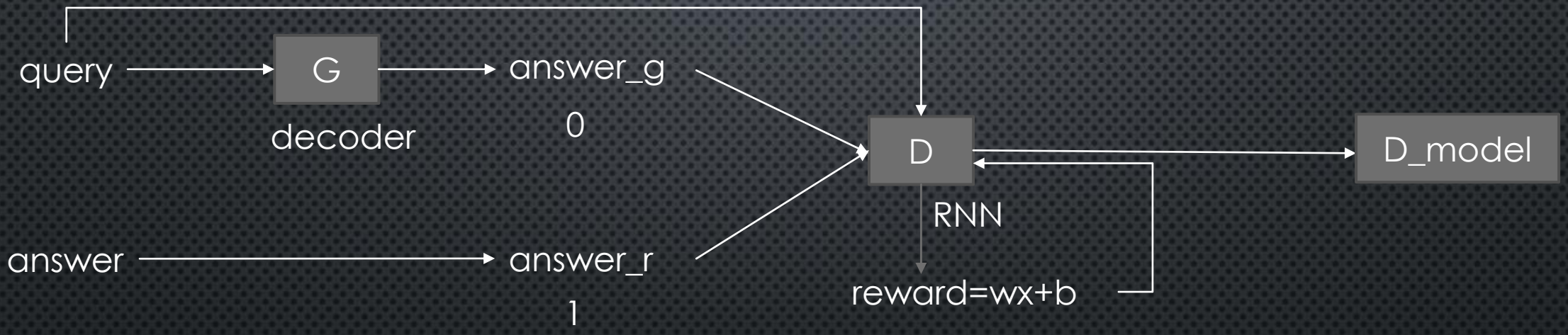
围棋和语言一样都是离散的，那么围棋可以，自然语言也可以
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 ....

SeqGAN版本分享：seqGAN原理（内力不行，外力驱动）

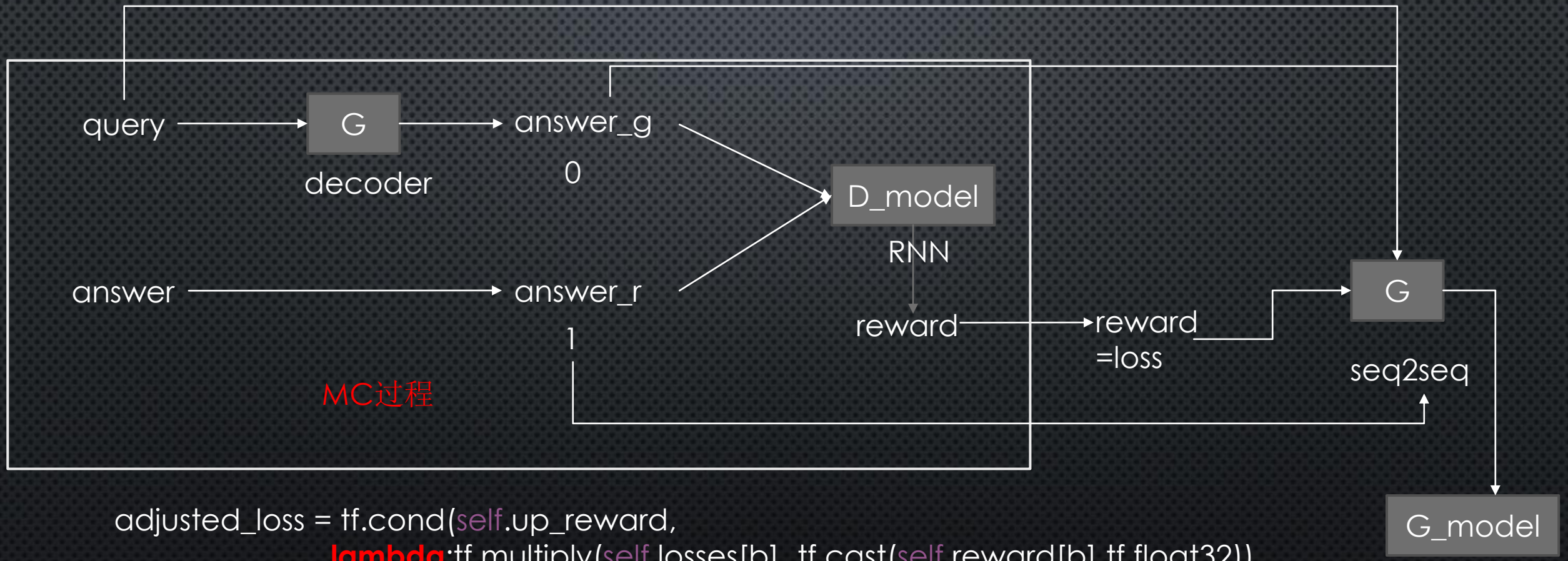


自然语言序列是离散的，那么单纯的GAN输出也是离散的，导致梯度不可导，无法驱动参数更新。
那么就用策略梯度来驱动，根据Reward来驱动逼近极值。

SeqGAN版本分享：seqGAN实现过程设计-更新D

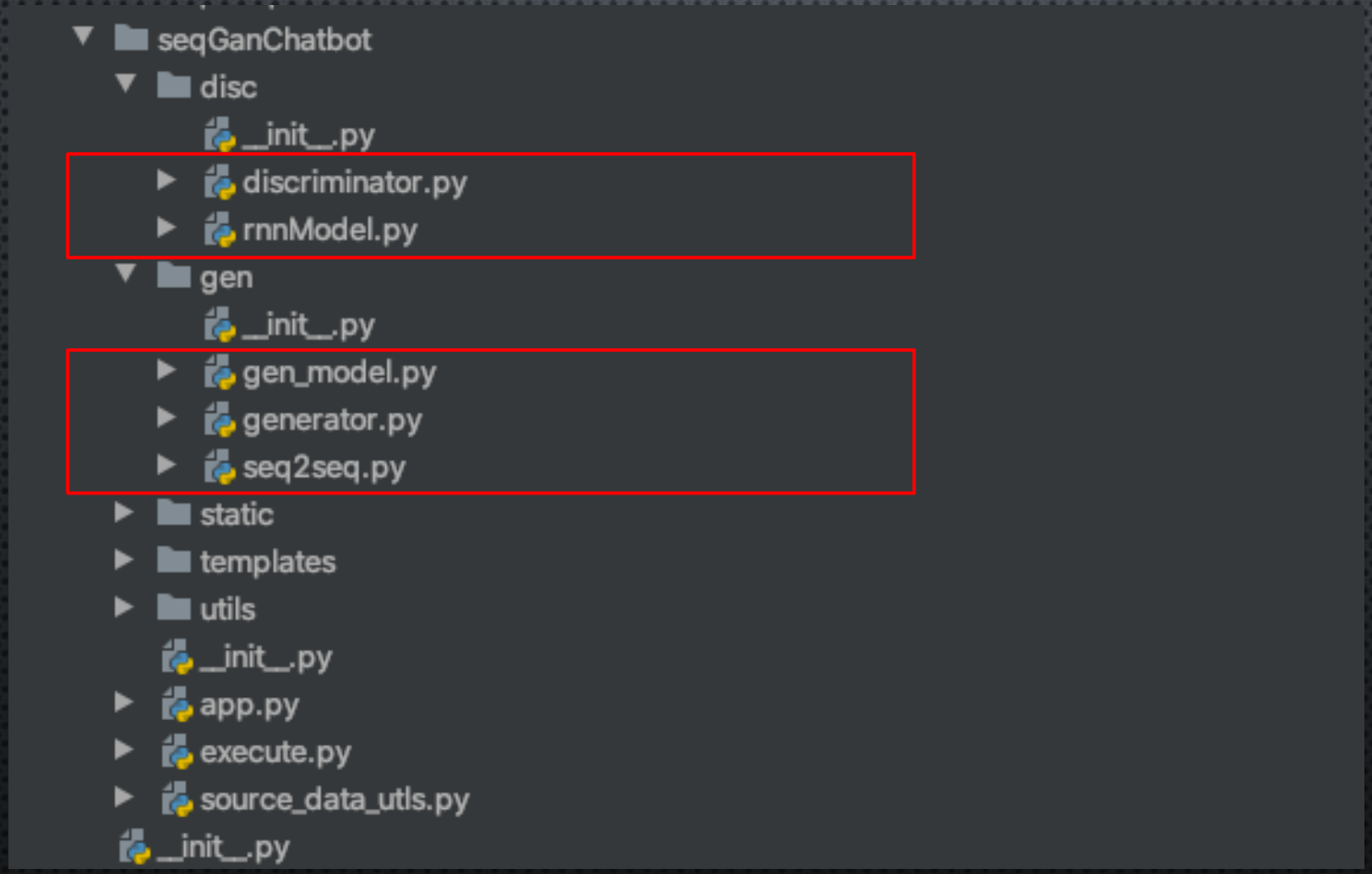


SeqGAN版本分享：seqGAN实现过程设计-更新G




```
adjusted_loss = tf.cond(self.up_reward,
                        lambda:tf.multiply(self.losses[b], tf.cast(self.reward[b],tf.float32)),
                        lambda: self.losses[b])
```

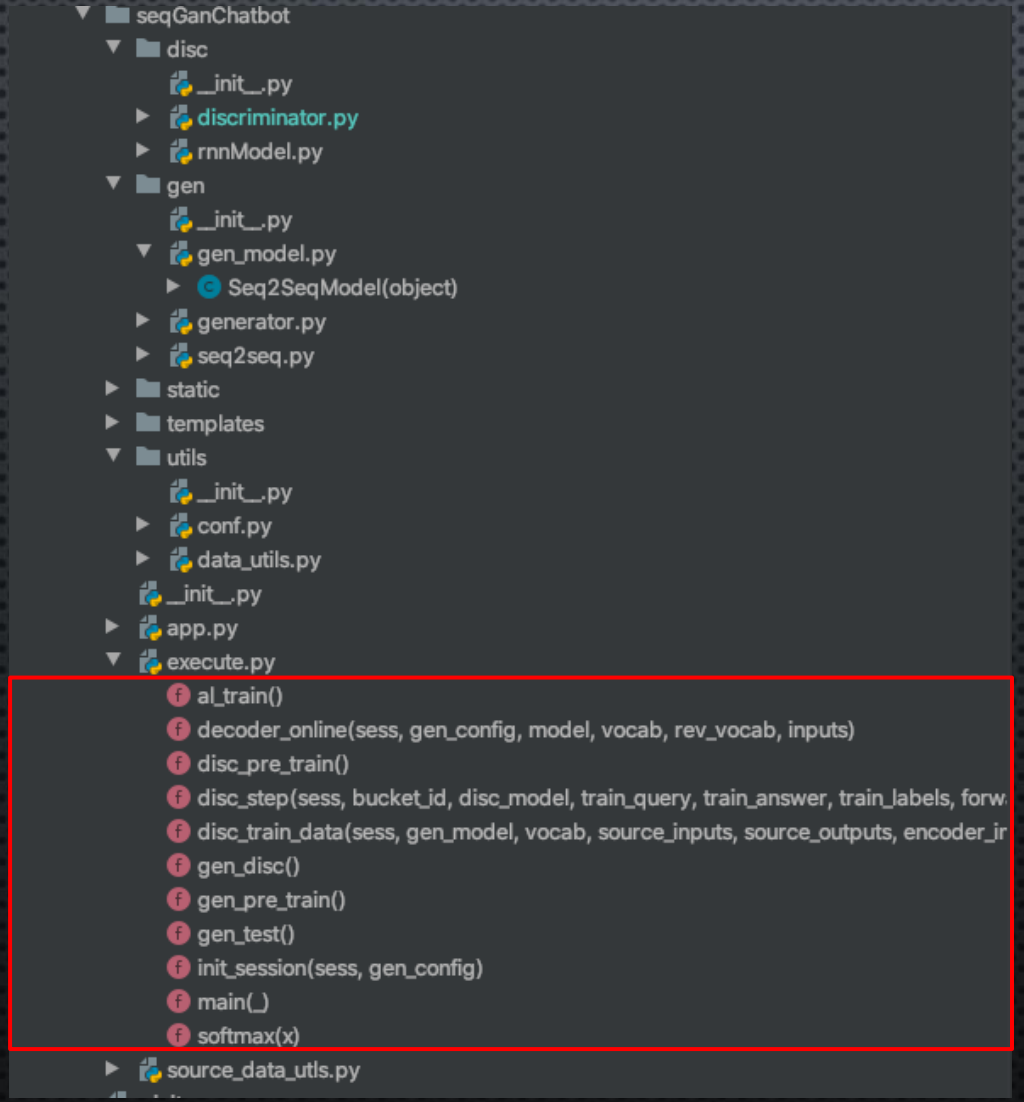
SeqGAN版本分享：seqGAN核心代码分析



SeqGAN版本分享：seqGAN实现过程设计-更新G

```
def decoder(num_roll):
    for _ in xrange(num_roll):
        _, _, output_logits = gen_model.step(sess, encoder_inputs, decoder_inputs, target_weights, bucket_id,
                                             forward_only=True)
        seq_tokens = []
        resps = []
        for seq in output_logits:
            row_token = []
            for t in seq:
                row_token.append(int(np.argmax(t, axis=0)))
            seq_tokens.append(row_token)

        seq_tokens_t = []
        for col in range(len(seq_tokens[0])):
            seq_tokens_t.append([seq_tokens[row][col] for row in range(len(seq_tokens))])

        for seq in seq_tokens_t:
            if data_utils.EOS_ID in seq:
                resps.append(seq[:seq.index(data_utils.EOS_ID)][:gen_config.buckets[bucket_id][1]])
            else:
                resps.append(seq[:gen_config.buckets[bucket_id][1]])

        for i, output in enumerate(resps):
            output = output[:answer_len] + [data_utils.PAD_ID] * (answer_len - len(output) if answer_len > len(output) else 0)
            train_query.append(train_query[i])
            train_answer.append(output)
            train_labels.append(0)

    return train_query, train_answer, train_labels

if mc_search:
    train_query, train_answer, train_labels = decoder(gen_config.beam_size)
else:
    train_query, train_answer, train_labels = decoder(1)

return train_query, train_answer, train_labels
```

SeqGAN版本分享：seqGAN核心代码分析



- 项目路标：

-SeqGAN的TF2.0 – 春节期间更新，pytorch版本更新待定，预计在国庆节期间

-飞桨平台适配-21年6月

-多轮情感聊天机器人版本-待定