英文学术论文写作指南

第七讲:学术论文之模型框架图绘制(下)

于静 副研究员 中国科学院信息工程研究所

系列报告主页:https://mmlab-iie.github.io/course/

2022.07 @ Bilibili





示例二:网络安全 | 新框架 | 大模型

ET-BERT: A Contextualized Datagram Representation with Pre-training Transformers for Encrypted Traffic Classification

WWW 2022

Paper: https://dl.acm.org/doi/pdf/10.1145/3485447.3512217 Code: https://github.com/linwhitehat/ET-BERT

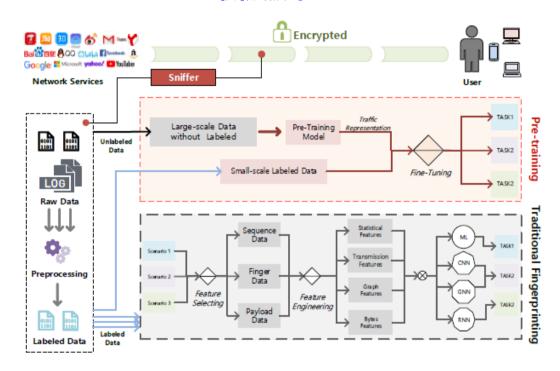
Xinjie Lin, Gang Xiong, Gaopeng Gou, Zhen Li, Junzheng Shi, Jing Yu*







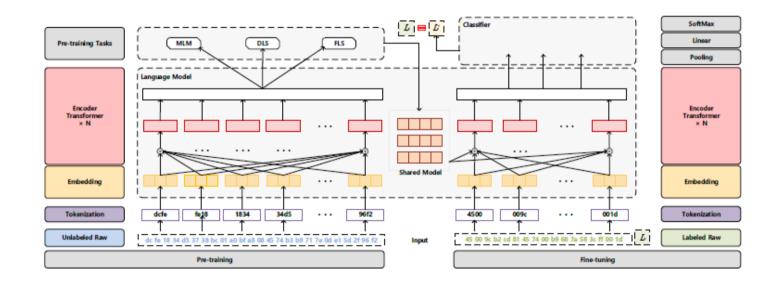
最初版本



主要问题:太多细节,大量数据预处理,甚至方法对比,毫无重点!



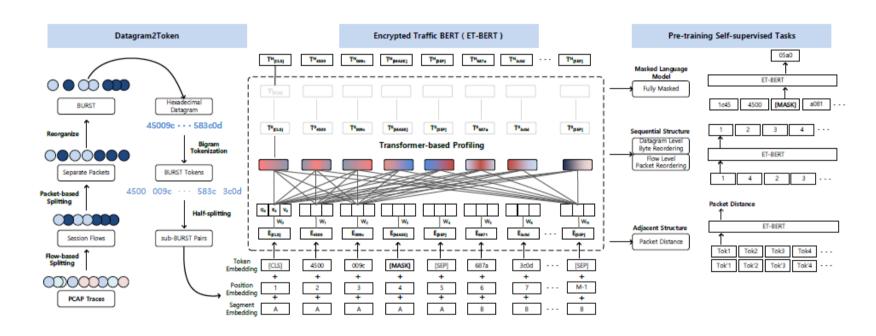
明确输入、输出、主要过程



主要问题:模块冗余,毫无说明,过程逻辑不清晰!



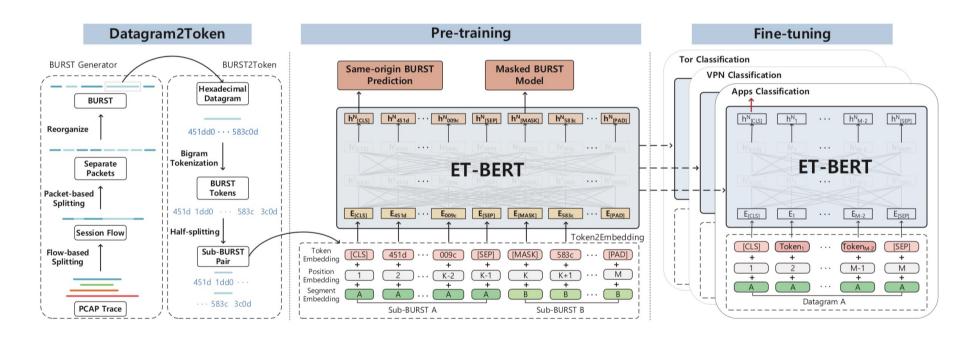
划分主要模块,明确模块功能



主要问题:技术创新不明确,训练、微调过程不清晰!



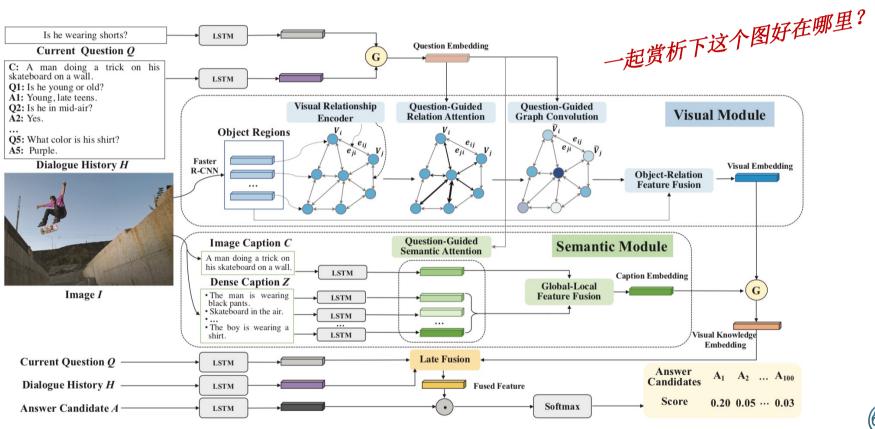
20+ times later ... 最终版本!





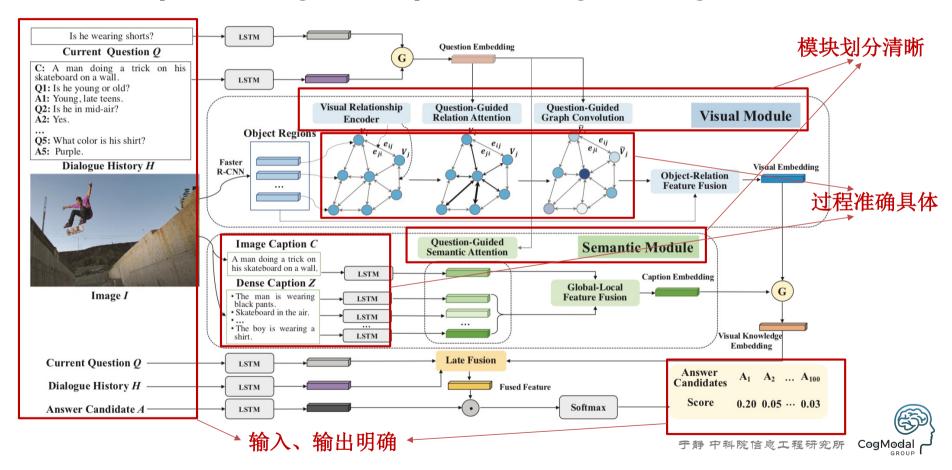
模型框架图

DualVD: An Adaptive Dual Encoding Model for Deep Visual Understanding in Visual Dialogue (AAAI 2020)



模型框架图

DualVD: An Adaptive Dual Encoding Model for Deep Visual Understanding in Visual Dialogue (AAAI 2020)



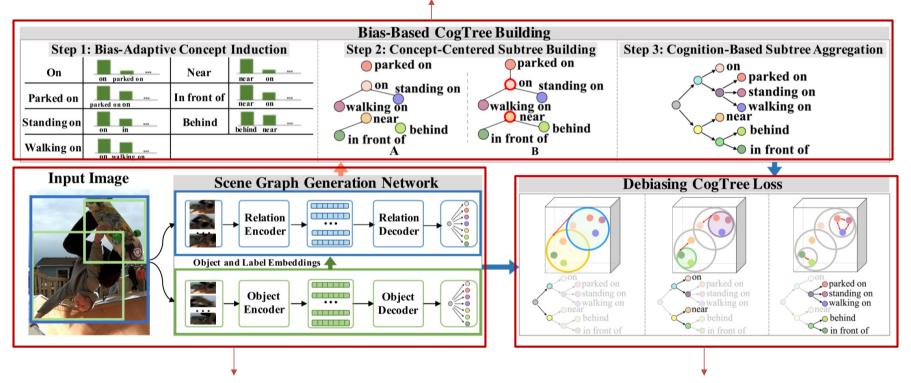
CogTree: Cognition Tree Loss for Unbiased Scene Graph Generation (IJCAI 2021)

这个图又又又好在哪里? **Bias-Based CogTree Building Step 1: Bias-Adaptive Concept Induction** Step 2: Concept-Centered Subtree Building Step 3: Cognition-Based Subtree Aggregation parked on parked on On Near on parked on oparked on on standing on on standing on → standing on parked on on In front of near on Parked on walking on near walking on walking on near Onear_ Standing on **Behind behind** behind . behind behind near in front of in front of Walking on in front of **Input Image Scene Graph Generation Network Debiasing CogTree Loss** Relation Relation Encoder Decoder Object and Label Embeddings 📤 parked on parked on parked on standing on Object **Object** walking on onear walking on walking on ... Encoder Decoder , behind . behind • behind in front of



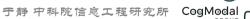
CogTree: Cognition Tree Loss for Unbiased Scene Graph Generation (IJCAI 2021)

核心技术创新,详细画!且用命中核心问题的真实数据贯穿始终!



清晰明了的模型框架,但不是创新点,略画!

训练过程和预测过程不同,需要分开阐明



论文示意图——小结

模型框架图

- **導明确翰入、翰幽、美鍵过程**
- 🌣 突辿创新,避免罗列非本文贡献内容
- **党 划分模块**,明确各模块所解决问题
- ☼ 精准命名每个过程、变量、符号
- ~ 致表达图示和正文相周语义内容



欢迎大家在B站留言交流!

于静

邮箱: yujing02@iie.ac.cn

课程主页: https://mmlab-iie.github.io/course/

研究组主页: https://mmlab-iie.github.io/

知乎专栏: https://www.zhihu.com/column/c 1284803871596797952









