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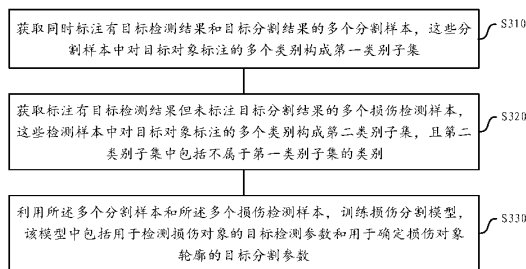


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- (71) 申请人: 阿里巴巴集团控股有限公司 (ALIBABA GROUP HOLDING LIMITED) [—/CN]; 开曼群岛大开曼资本大厦一座四层 847 号邮箱, Grand Cayman (KY)。
- (72) 发明人: 徐娟 (XU, Juan); 中国浙江省杭州市余杭区文一西路 969 号 3 号楼 5 楼阿里巴巴集团法务部, Zhejiang 311121 (CN)。
- (74) 代理人: 北京博思佳知识产权代理有限公司 (BEIJING BESTIPR INTELLECTUAL PROPERTY LAW CORPORATION); 中国北京市海淀区上地三街 9 号嘉华大厦 B 座 409, Beijing 100085 (CN)。
- (81) 指定国 (除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK,

(54) Title: METHOD AND DEVICE FOR DAMAGE SEGMENTATION OF VEHICLE DAMAGE IMAGE

(54) 发明名称: 用于对车辆损伤图像进行损伤分割的方法及装置



- S310 Acquire a plurality of segmentation samples labeled with a target detection result and a target segmentation result simultaneously, wherein a plurality of categories labeled on a target object in the plurality of segmentation samples constitute a first category subset
- S320 Acquire a plurality of damage detection samples labeled with target detection results but not labeled with target segmentation results, wherein a plurality of categories labeled on a target object in the plurality of detection samples constitute a second category subset, wherein the second category subset comprises categories not belonging to the first category subset
- S330 Use the plurality of segmentation samples and the plurality of damage detection samples to train a damage segmentation model, wherein the model comprises a target detection parameter for detecting a damaged object and a target segmentation parameter for determining a contour of the damaged object

(57) Abstract: Provided is a method for component segmentation and damage segmentation based on migration learning. The method specifically comprises: in a first aspect, a migration method can be learned based on high-frequency component categories with rich detection and segmentation data, then for a low-frequency component category with only detection data and no rich segmentation data, a corresponding segmentation result can be obtained by the detection frame thereof acting on this migration method; in a second aspect, a segmentation migration detection method can be learned based on high-frequency component categories with rich detection and segmentation data, then for a low-frequency damage category with only detection data and no rich segmentation data, a corresponding segmentation result can be obtained by the detection frame thereof acting on this migration method; and in a third aspect, a segmentation result of damage can be obtained through cross-domain migration learning from components to the damage. By means of these methods, it is possible to solve the problem that it is difficult to acquire segmentation data of a long-tailed component category and damage category.

(57) 摘要: 本说明书实施例提供基于迁移学习的用于部件分割和损伤分割的方法, 具体包括: 第一方面, 可以基于具有丰富的检测和分割数据的高频部件类别学习一种迁移方法, 然后对于只有检测数据没有丰富分割数据的低频部件类别可以通过其检测框作用于此迁移方法而获得对应的分割结果; 第二方面, 可以基于具有丰富的检测和分割数据的高频损伤类别学习一种检测到分割迁移方法, 然后对于只有检测数据没有丰富分割数据的低频损伤类别可以通过其检测框作用于此迁移方法而获得对应的分割结果; 第三方面, 可以通过部件到损伤的跨域迁移学习获得损伤的分割结果。通过这些方法, 可以解决长尾的部件类别和损伤类别的分割数据获取困难的问题。

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- 包括国际检索报告 (条约第21条(3))。