

EVAReview Project Proposal

Project Name: EVAReview

Project Repository Link: https://github.com/PelinalWS/CMPE_491

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Description:

EVAR/TEVAR (Endovascular Aneurism Repair/ Thoracic Endovascular Aneurism Repair) is a cardiovascular operation technique that is used to treat aneurysms - a condition of a blood vessel's walls expanding outward and making a "balloon" like structure- by entering into the body with specialized tools through a connecting vein instead of making bodywide incisions or bisections.

This operation does have specifications that must be met by the patient's specific case and the procedure might not be safer than the bisection. This project is meant to be a tool to aid assessing the danger of the operation on the specific patient by using Machine Learning to learn from previously taken tomographies and tomographies that are known to be of patients that had successful operations and assess the risk of the operation by the learnt data.

Normally, the danger is assessed by the doctors who look at the specific values of the aneurysm such as the inner width of the vein or the increase in volume. This project aims to present another approach by making the evaluation process more intuitive.