UCI Beall
Applied Innovation
Research Translation Group

Research Translation Group   Available Technologies   Contact Us

Request Information

Permalink

Artificial Intelligence Enabled, Automated Electronic Surgical Education Models And Radiographic Data Generation

Tech ID: 33880 / UC Case 2024-940-0

CONTACT

Richard Y. Tun
tunr@uci.edu
tel: 949-824-3586.

BRIEF DESCRIPTION

An AI-powered platform for the generation of automated electronic patient anatomy education models, providing surgeons with clinically relevant patient anatomy data.

FULL DESCRIPTION

This technology utilizes artificial intelligence to create an iPhone-based application and web-based platform where patients can access interactive 3D models of their spine. These models are automatically generated from DICOM files, with the aim to improve patients' understanding of their spinal anatomy and pathology. Its cutting-edge software processes will de-identify original patient DICOM, implement a deep convolutional neural network (CNN) model to automate the creation of a patient-specific 3D volumetric object, convert this file into a USDZ file, and enable interaction with the 3D spine model on the application's interface. It also offers vital pathological data to surgeons post DICOM upload.

SUGGESTED USES

» Spine surgery patient education

» Medical imaging and diagnostics

» Healthcare provider communication and decision-making

OTHER INFORMATION

CATEGORIZED AS

» **Computer**
  » Other
» **Medical**
  » Research Tools
  » Screening
  » Software
» **Research Tools**
  » Other

ADVANTAGES

» Improves patients' understanding of their spinal anatomy

» Facilitates patient-centered discussions about treatment options

» Saves time and resources Eases practicality and clinical utility

RELATED CASES

2024-940-0

PATENT STATUS

Patent Pending

UCI Beall
Applied Innovation

5270 California Avenue / Irvine,CA
92697-7700 / Tel: 949.824.2683