

 CASE STUDY

# CURATING CRANIAL CT SCANS: ADVANCING AI IN NEUROLOGICAL IMAGING

## CLIENT'S PROFILE

**Country:** Germany

**Size:** 5000+ employees worldwide

**Industry focus:** Software and hardware development of medical equipment.

## PROJECT GOAL

Development of software that automatically detects brain metastases, meningiomas, and cranial/paracranial nerve tumors in CT scans.

## PROJECT DESCRIPTION

medDARE provided data curation of 150 raw cranial CT scans with brain metastases stemming from all kinds of primary tumors, meningiomas, cranial/paracranial nerve tumors, etc. Each dataset corresponded to a different patient and included the following sequences:

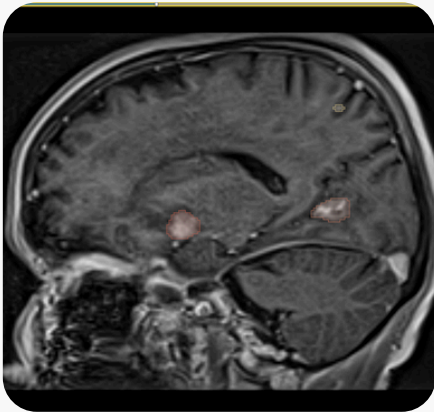
- 3D T1-weighted MRI with and without contrast agent
- MRI T2 or MRI T2-FLAIR
- DTI
- 3D CT

Metadata, including diagnosis and age group (>18 years old), was available in English. Scanner type of CT scan was documented additionally, if not available in the DICOM header.

Data was stored in the medDARE and client's servers in the EU. medDARE team has contoured the data using 3D Slicer 5.4.0. Radiologists were trained by the client's team to use the software via the training material with the workflow of using the annotation tool.

After completing the work on the case, the annotation files were exported using the macro command and uploaded to the client's server.

## PROJECT WORKFLOW & TEAM ASSIGNED



## THE WORKFLOW AND QUALITY ASSURANCE PROCESS AT MEDDARE LOOKED LIKE THE FOLLOWING:

### Data Curation Specialists' qualification:

- Radiologists with degree in Neuroradiology
- 7+ years of experience as a doctor
- 3+ years of data annotation experience with medDARE

### On Operations Manager's (OM) side:

- Understanding customer needs and requirements in order to develop and maintain effective quality control process;
- Coordinate activities to meet the required standards of quality;
- Setting deadlines and managing tasks;
- Controlling the quality of all current projects;
- Communicating with clients to make sure that both parties have the same understanding of the quality standards and project workflow.

### On Quality Manager's (QM) side:

- Ensuring that all development tasks meet quality criteria through the test planning, test execution, quality assurance, and problem tracking;
- Testing employee knowledge to define quality level;
- Providing training sessions for employees;
- Monitoring the quality of each team member.

## PROJECT'S OUTCOME

Thanks to the services provided by medDARE, the client was able to keep the costs of the project under control and achieve significant savings on overhead costs. medDARE helped the client keep the project on schedule by hiring and training the needed number of radiologists quickly and providing high-quality data curation services.



## CONTACT US TO LEARN MORE ABOUT MEDDARE & HOW IT CAN TRANSFORM YOUR AI PROJECT

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