medDARE

CASE STUDY

LAPAROSCOPIC HERNIA VIDEO COLLECTION FOR AI PROCEDURE DETECTION

CLIENT'S PROFILE

Country: USA
Size: 10,000+ employees
Industry focus: Development of software to detect various endoscopic procedures and surgeries

OVERVIEW

medDARE was approached by a leading US healthcare AI company to support the collection of laparoscopic hernia surgery videos. The client required:

- A total of **50 laparoscopic hernia videos**, representing unique procedures.
- Video lengths ranging from 20 minutes, ensuring **comprehensive procedural coverage**.
- **Full anonymization** of all personal information, including faces, visible screens, and any other identifiable data.
- Recording using **specific endoscope types in full HD resolution**.
- Data collection from **at least two hospital sites** over a period of two months.

The primary goal was to create a dataset suitable for training and validating AI systems for procedure recognition and analysis.

KEY FINDINGS

1. **Data Standardization**: Despite different hospital sites and equipment brands, consistent quality and format were critical. Full HD resolution and proper endoscope usage were maintained.
2. **Anonymization Requirements**: Anonymization protocols were necessary to comply with privacy regulations, including HIPAA, and to ensure no PII remained in the videos.
3. **Procedural Variability**: Even for the same type of surgery, procedural steps varied slightly between surgeons and hospitals, highlighting the need for diverse real-world data in AI training.
4. **Efficiency Gains**: Coordinating with hospitals for video capture was successfully managed.

SOLUTIONS PROVIDED

- **End-to-End Video Collection**: medDARE coordinated with hospital staff to capture videos from the specified endoscope types, ensuring high-quality, full HD recordings.
- **Anonymization and Compliance**: All videos were processed to blur faces, screens, and other personal identifiers, ensuring strict compliance with HIPAA regulations.
- **Project Management**: Close collaboration with hospital teams allowed medDARE to collect all videos within the two-month timeframe, without disrupting clinical workflows.
- **Quality Control**: medDARE implemented strict QC processes to verify video length, resolution, and completeness, ensuring all deliverables met client specifications.

IMPACT

- **High-Quality Dataset for AI Training**: The delivered videos provided a diverse and standardized dataset for AI models to learn from, enhancing the accuracy of procedure recognition software.
- **Time and Resource Savings**: By outsourcing video collection and anonymization to medDARE, the client could focus on AI development rather than data logistics.
- **Regulatory Confidence**: Full anonymization and compliance measures gave the client confidence that the dataset met privacy and ethical standards.
- **Foundation for Future Projects**: This dataset established a scalable workflow for future endoscopic video collection projects, allowing rapid expansion into other surgical procedures.

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

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