Deep learning algorithm assisted diagnosis system to detect and visualize vertebral fractures

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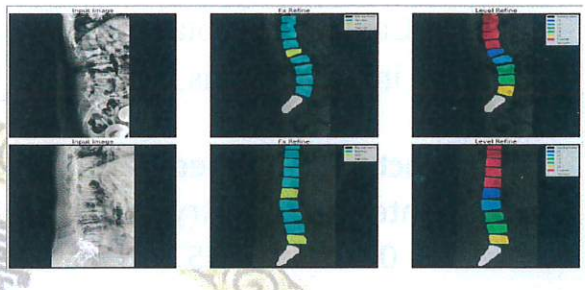

Experience:
https://scholars.lib.ntu.edu.tw/entities/person/96465d89-2615-4b8d-8b02-6f9910de06fd

Market Needs:

The growing demand for AI-assisted vertebral fracture detection is driven by rising osteoporosis-related fractures, an aging population, and high underdiagnosis rates—with only one-third of vertebral fractures detected clinically. Radiologists face heavy workloads, leading to misdiagnoses, while CT scans remain costly and inaccessible in many settings. SpineCapture addresses this gap with cost-effective, AI-driven X-ray analysis, enhancing early detection, optimizing workflows, and reducing healthcare costs. With AI CPT codes approved for reimbursement, AI-powered diagnostics are becoming a clinical necessity and a financially viable solution for healthcare providers.

Our Technology:

SpineCapture is an AI-driven solution that enhances early detection of vertebral fractures using X-ray imaging. By leveraging deep learning and CNNs, it automates fracture detection, reducing reliance on manual interpretation and costly CT scans. The system integrates with PACS, providing real-time AI-assisted diagnosis and Grad-CAM heatmaps for better visualization and accuracy. Operating as a closed-system AI, it ensures data security while complying with HIPAA & GDPR. SpineCapture also connects with Fracture Liaison Services (FLS) to facilitate timely follow-up care, helping reduce 80-90% of secondary fractures. With AI CPT codes approved for reimbursement, it offers a cost-effective, scalable, and clinically impactful solution for radiology centers and hospitals.

Strength:

SpineCapture stands out in the AI-powered vertebral fracture detection market by offering a cost-effective, X-ray-based solution. Its deep learning algorithm enhances fracture detection accuracy, increasing diagnostic efficiency while reducing radiologists' workload by 80%. It operates as a closed-system AI ensuring data security and compliance with HIPAA & GDPR. It integrates with Fracture Liaison Services (FLS) for post-diagnosis care, helping reduce 80-90% of secondary fractures

Competing Products:

Competitors such as Zebra Medical Vision, Avicenna.AI, and Annalise.ai, which primarily rely on CT imaging and cloud-based solutions.

Intellectual Properties:

SpineCapture has obtained a new patent from the Republic of China. The patent name is X-ray image analysis instrument (Patent No. M624947).

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