Literature comparison

Title	Year	Type of Data	Model architecture	Highlight	Priority
Artificial Intelligence for prediction of COVID-19 progression using CT imaging and clinical data	2022	Timestamp	DL-Severity Prediction: EfficientNet; DL-based progress prediction: 256-D DL features + random survival forest; Clinical based progression prediction: 15 clinical features extracted	Architecture	9
Multimodal Machine Learning based Knee Osteoarthritis Progression Prediction from Plain radiographs and Clinical Data	2019	Timestamp	CNN (ResNext50) + Two branches (progress prediction + kl grades) + GBM	Gradient Boosting Machine	8
ImageFlowNet	2025	Temporal	UNet + Neural ODE/SDE Trajectory modeled through position (time independent)	Neural ODE/SDE	7
A Long Short-Term Memory Biomarker-Based Prediction Framework for Alzheimer's Disease	2022	Temporal	RNN + LSTM	From the MRI biomarkers are extracted and used as feature vectors	6
DP-GAT: A framework for Image-based Disease Progression Prediction	2022	Temporal	3 modules: -Region proposal: 2D UNet -Region feature extraction: 3D CNN (ResNet3D) -Graph Reasoning: GAT	Graph reasoning	6
Intelligent Image Processing Techniques for Cancer Progression Detection, Recognition and Prediction in Human Liver	2014	Timestamp	ROI + Classification with diffferent methods (SVM best)	Active Contour model - Matching a defromable model to an image by means of energy minimization	6
Deep Learning-Based Prediction of Individual Geographic Atrophy Progression from a Single Baseline OCT	2024	Temporal	PSC-UNet extracts feature encodings from each scan A NeuralODE framwork is used to approximate the time derivative of these features Encodings are transformed into probabilities of GA at each location (en face segmentation maps of lesion growth)	Neural ODE	5
Learning Spatio-Temporal Model of Disease Progression With NeuralODEs From Longitudinal Volumetric Data	2024	Temporal	CNN (3D-UNet) extracts features (initial conditions for the ODE system) Neural ODE Evolution	Neural ODE, uses single baseline image for inference	5
Clinically-Inspired Multi-Agent Transformers for Disease Trajectory Forecasting from Multimodal Data	2023	Temporal	Multi-Agent Transformer Design: - Radiologist module (R): CNN+Transformer → produces imagin features + diagnostic prediction - Context module (C): Embeddes clinical/non-imaging data, transformer encodes this into a context embedding - General Practitioner module (P): Combines outputs from R + C, forecasts disease trajectory	Transformers	5
Temporal Context Matters: Enhancing Single Image	2022	Temporal	TCN to learn temporal correlations ViT pretrained in a self-supervised	ViT	5

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Prediction with Disease Progression Representations			to extract features form timestamps		
Disease Progression Detection via Deep Sequence Learning of Successive Radiographic Scans	2022	Temporal	CNN (ChexNet) to classify CXRs into mild,moderate, and sever infections. LSTM determined progression		4
Optimizing Survival Analysis of XGBoost for Ties to Predict Disease Progression of Breast Cancer	2021	Not Clear	MP4Ei framework Confusing	Gradient boosting algorithm - EXSA	2
Automated quantification of COVID-19 severity and progression using chest CT images	2020	Temporal	UNet for segmentation	Progression identified through difference in ct scans, not helpful	1