Clinical Specialty

Neurology
Alzheimer's disease, Parkinson's disease

Psychiatry
Schizophrenia, Depression

Cardiology
Arrhythmia, Heart failure

Endocrinology
Type-2 diabetes, Thyroid nodules

Orthopedics
Spondyloarthritis, Fracture

Ophthalmology
Glaucoma, Lacrimal drainage disorders

Nephrology
Acute kidney injury, Kidney stones

Gastroenterology
Appendicitis, Boston Bowel

Oncology
Breast cancer, Pancreatic cancer

Rheumatology
Rheumatic disease, Sjögren's syndrome

Pulmonology
Pulmonary embolism, COVID-19

Dermatology
Psoriasis, Eczema, Actinic keratosis

Clinical Data

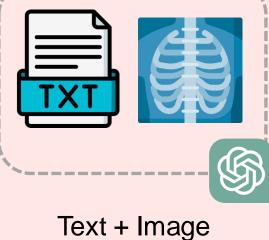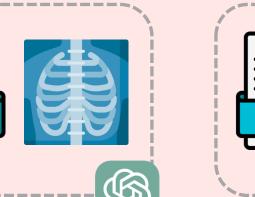Clinical note | X-ray | Pathological image | MRI | ECG | Ultrasound | Genetic data | Lab test | ... | Speech
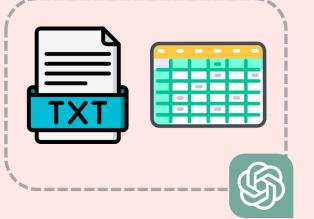
Data Modality
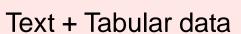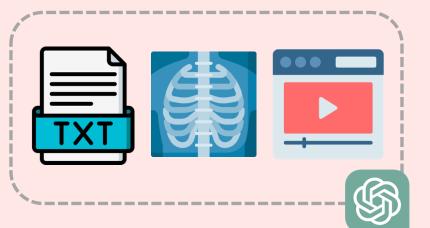
Text | Text + Image | Text + Time series | Text + Tabular data | ... | Text + Image + Video

LLM Technique
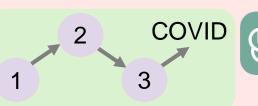
Q: Am I infected with any disease?
A: COVID-19. As you had signs ...
Prompt (Zero-shot)

Q: Am I infected with any disease?
1 2 3 → COVID
Prompt (CoT)
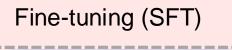
Q: Am I infected with any disease?
A: COVID-19. As you had signs ...
RAG (Database)

COVID-19 ✓
Normal ✗
Fine-tuning (SFT)

Pre-training
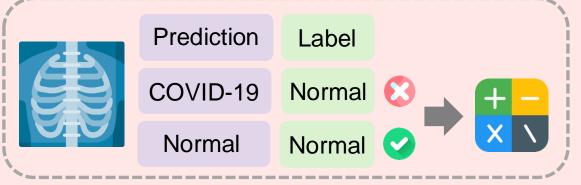
Prompting | RAG | Fine-tuning | Pre-training

Evaluation Method

Prediction | Label
COVID-19 | Normal ✗
Normal | Normal ✓
Automated Evaluation

Q: What is the possible disease?
Prediction: COVID-19. As he had signs ...
Human Evaluation

Q: What is the possible disease?
Prediction: COVID-19. As he had signs ...
Ground-truth: Lung cancer. Since he had signs ...
LLM Evaluation