



# Pi-EmPATHy

## **Increase in cancer cases demands early, accurate and automated analysis of Whole Slide Image (WSI) for streamlined diagnosis.**

With the integration of high-quality Embedding Model, accuracy in cancer tissue detection is increased which in turns improves diagnostic accuracy. Automated cancer detection and analysis of WSI followed by report generation enables seamless and efficient assistance for pathology-based diagnosis.

## **Pi-EmPATHy can help both assist decision-making and unlock cost savings in biomedical disease diagnosis.**

**Accelerate easier data-driven decision-making via ML embedding followed by report generation.**

**Help create potential new revenue streams by enabling faster disease diagnosis.**

**Modernize technology integration to support accuracy and precision in cancer detection.**

## **Pi-EmPATHy enabled faster cancer detection and report generation by analyzing large volume of WSI.**

An esteemed pathology-based diagnostic lab leveraged the potential of Pi-EmPATHy to analyse large volume of Whole Slide Images into medical output. The solution offered assistance for efficient and accurate cancer diagnosis and report generation by integrating technologies such as machine learning embeddings, large multimodal models, and natural language processing.

This solution enabled efficient patient management. It also accelerated the treatment pipeline by amplifying disease diagnosis process.

## Conventional methods of cancer detection from a tissue is costly and time consuming.



Manual analysis is time consuming, not scalable and prone to human error and inconsistent results.



Standalone GenAI leverage is susceptible to hallucination in disease diagnosis.



Human error leads to limited accuracy with standard methods.

## Pi-EmpATHy works in three phases.

### Phase 1: Cancer Detection

Identify the cancerous sections of WSI by ML embeddings

#### WSI Processing

Griding and chopping the WSI in smaller chunks for easy analysis

#### ML Embedding

Detect the cancerous section or chunks based on machine learning embedding

### Phase 2: Image Analysis

Analyse the cancerous section to convert WSI into medical text

#### Virtual Assistant

GenAI-powered virtual assistant to assist diagnose the cancerous sections

#### Draft Report

Generate a draft report by analyzing the WSI into medical text output

### Phase 3: Report Generation

Build a report in a standard format by extracting entities

#### Key Entity Extraction

Extract and suggest key medical entities based on draft report

#### Content Population

Populate the standard headings of the report with relevant medical content

## Why Pi-EmPATHy?

### Embedding-Driven Insights

Generates deep feature embeddings from WSI chunks, enabling more nuanced cancer detection and improving classification accuracy.

### AI-Powered Precision

Empathy utilizes advanced AI models trained on millions of medical images to deliver highly accurate cancer tissue classification.

### Enhanced Diagnostic Efficiency

Automates WSI analysis, reducing manual effort and providing clear visual representations by generating mask aiding pathologists in decision-making.

### Faster Detection and Report Generation

Accelerate easier data-driven decision-making via ML embedding followed by report generation.

Start your Pi-EmPATHy journey today. Reach out to a specialist to identify next steps.

Contact Us

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