

# MedGemma | an open vision-language model for broad medical applications

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The MedGemma collection—built on Gemma 3—delivers powerful multimodal foundation models that excel in broad clinical reasoning, complex modalities like high-dimensional 3D imaging, whole-slide pathology, and longitudinal X-ray analysis, offering the community an open resource to accelerate next-generation medical AI.

## The MedGemma Collection

### MedGemma Collection

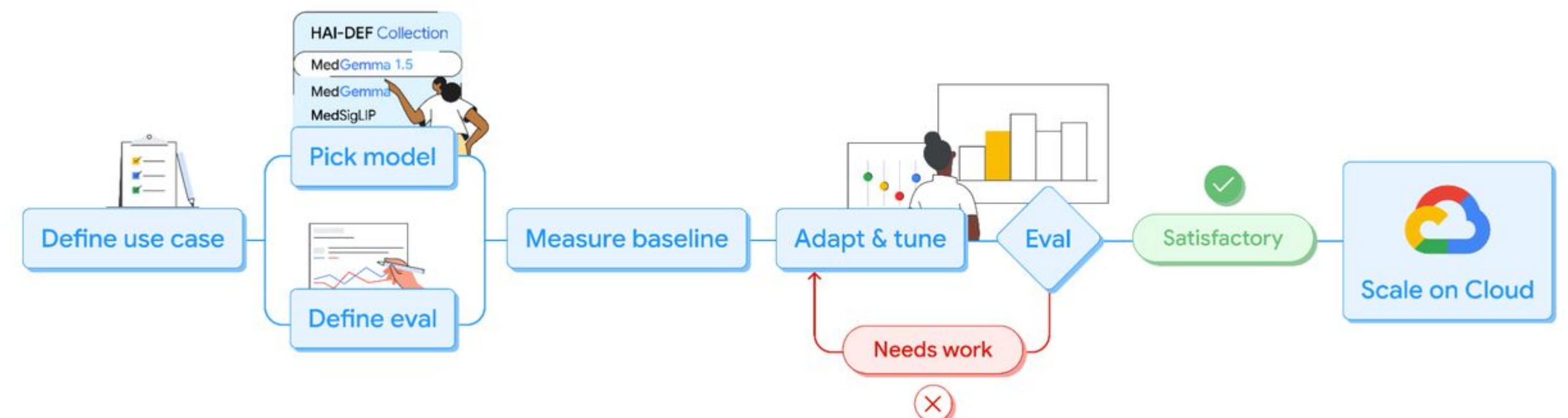
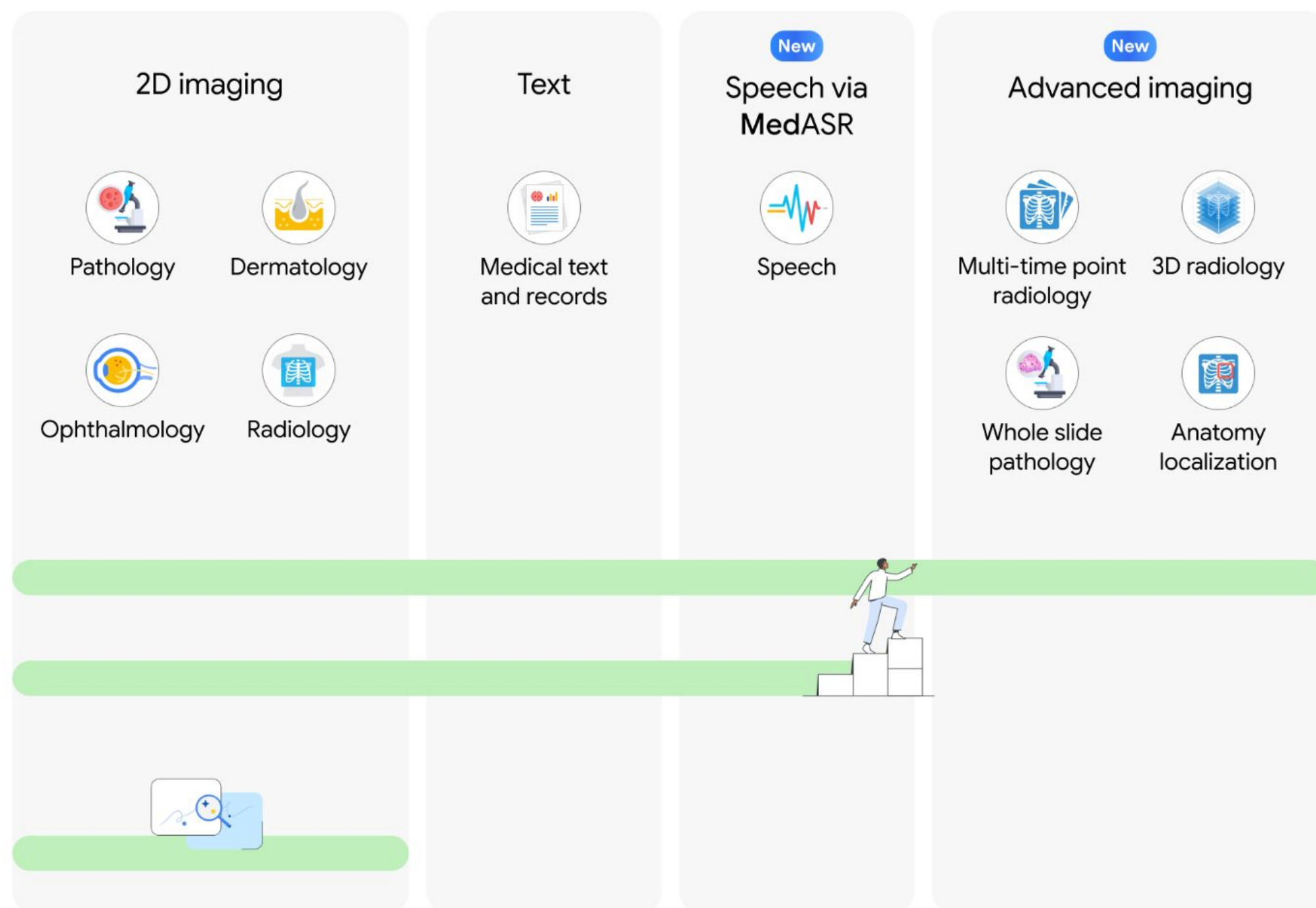
Multimodal generative models

**MedGemma 1.5** 4B

**MedGemma** 27B

Image encoder

**MedSigLIP** 0.4B



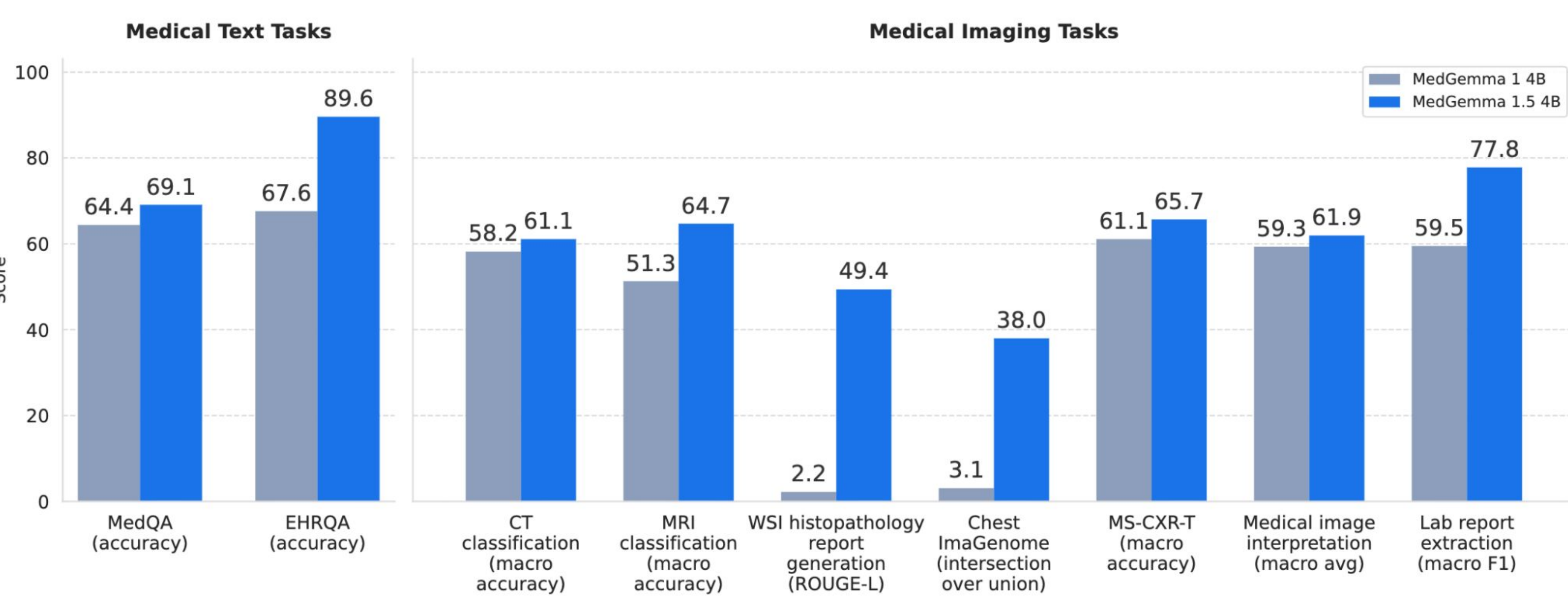
(Above) Flow chart describing the intended use of MedGemma as a developer tool.

- Finetuning is recommended for downstream tasks

(Left) MedGemma models and their capabilities.

- Offers variants in 2 models sizes, a vision encoder, and a speech-to-text model

## Evaluations



### MedGemma 1 (May 2025)

- Establishes a strong baseline for medical text and single-image medical tasks

### Key Improvements for 1.5 (Jan 2026)

- Significantly improves at many text and imaging tasks, including high-dimensional imaging

**Prompt**

You are analyzing a contiguous block of CT slices from the abdomen. The patient is being evaluated for potential liver tumors. Based on the visual evidence in the slices provided above, is there evidence of a tumor in the liver? You must first explain your reasoning, specifically noting any suspicious features.

**AI Response**

Based on the provided CT images, there is evidence of a large, irregular mass in the right lobe of the liver. This mass exhibits significant heterogeneous enhancement, with areas of both hyperdensity and hypodensity. The mass appears to be causing some distortion of the liver parenchyma and may be associated with some degree of intrahepatic biliary dilation.

**AI response evaluation by board-certified thoracic radiologist**

✓ I agree there is a large tumor in the right hepatic lobe. I agree with the characterization of its heterogeneity, enhancement characteristics, and associated liver parenchymal distortion.

✗ However, no substantial intrahepatic biliary ductal dilation is apparent.

Fine-tuning may improve results

**Prompt**

Compare the two above images. Is the pneumonia unchanged, worsened, or improved in the second image compared to the first image?

**AI Response**

Based on the provided chest X-rays, the pneumonia appears to be worsened in the second image compared to the first image. The second image shows more extensive and dense opacities in the left lung, indicating a greater degree of consolidation. The right lung also shows some increased opacities, but to a lesser extent.

**AI response evaluation by board-certified thoracic radiologist**

✓ I agree the pneumonia has worsened on the second image compared to the first image. I agree with the reasoning and description of the lung opacities.

✗ However, a region of relative lucency in the mid right lung, which could represent either cavitation or merely a region of lung spared by pneumonia, is not mentioned.

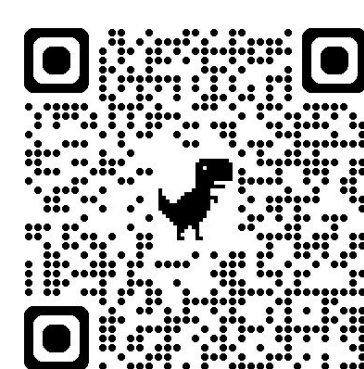
Fine-tuning may improve results

Example showing how MedGemma 1.5 4B can be used to interpret a CT volume along with commentary by a board-certified thoracic radiologist on the quality of the output. Note that MedGemma is not intended to be used without appropriate validation, adaptation and/or making meaningful modification by developers for their specific use case.

Example showing how MedGemma 1.5 4B can be used to interpret a longitudinal pair of chest X-rays along with commentary by a board-certified thoracic radiologist on the quality of the output. Note that MedGemma is not intended to be used without appropriate validation, adaptation and/or making meaningful modification by developers for their specific use case.

## Usage by Community

- 3M+ Huggingface downloads
- 800+ derivative MedGemma models (i.e. fine-tuned or quantized)
- 300+ official citations and 800+ publication references to MedGemma
- 800+ Kaggle submissions (Impact Challenge)
  - On-device clinical extraction in 6 languages
  - iOS app for private skin health tracking
  - And more!



A collaboration to build India's Health Foundation Models, with the aim to improve the efficiency of healthcare providers and support patient outcomes throughout India.

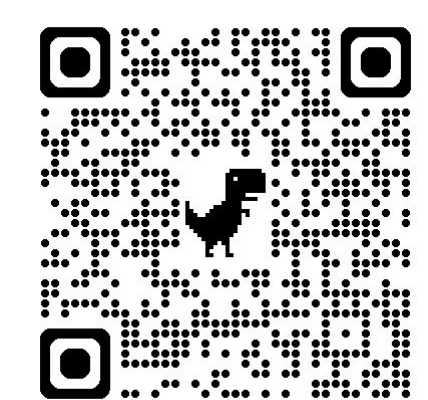


A formal partnership with AI Singapore (AISG) to enable the development of AI solutions that can speed up diagnoses and unlock more effective treatments for Singapore.

Google Research

Google DeepMind

Google for Health



Model Card



Tech Report