
Vision-Language Models for Radiology AI

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Abstract:

In this talk, I will describe the impact that language models can have for the field of radiology, which has long utilized computer vision methods only. I will describe the use of some pure large language models (LLMs) for radiology text, and then transition to how these domain-specific LLMs can enable improved image understanding, image captioning, and synthetic image generation tasks. I will end with a brief description of how our evaluation techniques need to keep pace with new model developments.

Reading list for students:

- 1: <https://www.nature.com/articles/s41591-024-02855-5>
- 2: <https://www.nature.com/articles/s41551-024-01246-y>
- 3: <https://arxiv.org/abs/2401.12208>
- 4: <https://arxiv.org/abs/2406.06512>