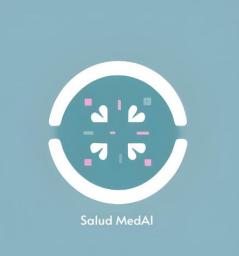
Medical Dilemma: Medical Visual Question Answering (MVQA)





Camille Ko Anubhav Dattagupta Dennis Chan Zicong Wen Jordana Izquierdo

Who Are We?





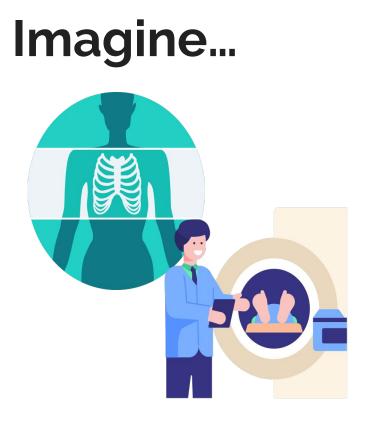








- We are a dedicated group of **data** science students deeply passionate about the realms of artificial intelligence and the medical field.
- Our **focus** : **AI** to address complex **medical** challenges. Strive to find innovative solutions to intricate **medical dilemmas**.
- Our **mission**: is to contribute to the advancement of **healthcare**





Problem

- X-rays and CT scans are common diagnostic tools, but they are hard to interpret by non-trained individuals.
- Research shows that the reports of these scans often take up to a week to be generated¹.
- On average, patients may need to wait for an additional appointment with their GP to understand the results².
- The uncertainty of not knowing the results can result in sleepless nights and emotional distress.

References:

1. https://www.nibib.nih.gov/sites/default/files/2022-05/Fact-Sheet-Computed-Tomography.pdf.

2. Computed Tomography (CT) Scans and Cancer Fact Sheet - NCI. https://www.cancer.gov/about-cancer/diagnosis-staging/ct-scans-fact-sheet

Problem

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Solution

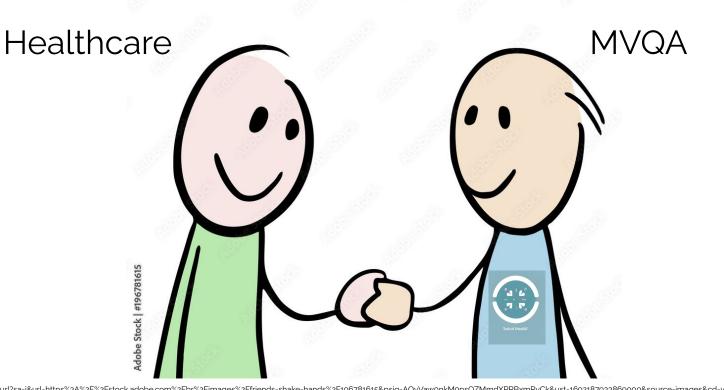
- Lessen the delays in receiving scan reports lead to heightened anxiety among patients.
- Improve general understandability of these reports.
- Patients might take preventive measures while waiting for results, avoiding potential complications.

References:

1. https://www.nibib.nih.gov/sites/default/files/2022-05/Fact-Sheet-Computed-Tomography.pdf.

2. Computed Tomography (CT) Scans and Cancer Fact Sheet - NCI. https://www.cancer.gov/about-cancer/diagnosis-staging/ct-scans-fact-sheet

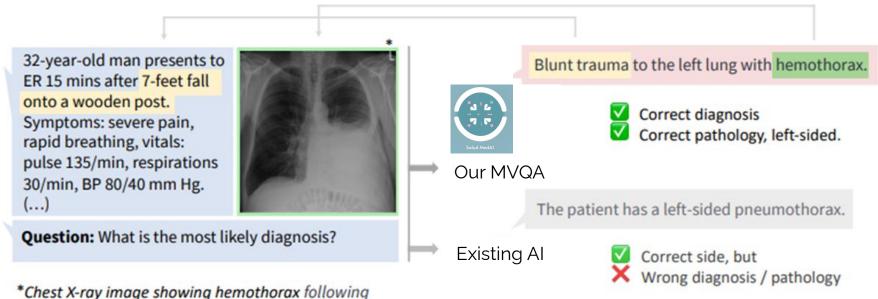
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Reference:

https://www.google.com/url?sa=i&url=https%3A%2F%2Fstock.adobe.com%2Fbr%2Fimages%2Ffriends-shake-hands%2F196781615&psig=AOvVawonkM9psOZMmdXPRBxmRvCk&ust=1692187933869000&source=images&cd=vfe&opi=89978449&ved=0CA8Q iRxgFwoTCPC4rLfR3oADFQAAAAAAAAAAAAAAAAAAA

Salud MedAl system prototype: MVQA



blunt chest trauma

Moor, M, Huang, Q, Wu, S, Yasunaga, M, Zakka, C, Dalmia, Y, . . . Leskovec, J 2023, 'Med-Flamingo: a Multimodal Medical Few-shot Learner'.

Why Salud MedAI - MVQA

- 1. Efficiency and resource allocation
- 2. Efficient report generation
- 3. Reports from x-ray and CT scan images in minutes
- 4. Easy to read, accurate, and explainable
- 5. Fill in the knowledge gap
- 6. Help patients to better prepare themselves and start taking preventive measures before seeing their GP

Thank you so much for listening. Connecting with us



Camille KO Al Developer | Data Scientist (Python/SQL/ Cloud) | Analytics Engineering | Machine/De...





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Anubhav Dattagupta Student at University of Adelaide





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