CT scans typically involve acquiring 1000+ individual x-ray images, which exposes the patient to a large amount of radiation. For younger patients, this is potentially harmful. MRI typically involves acquiring 256 individual images which takes 30 minutes to 1 hour, adding cost and leading to patient discomfort. Therefore, it is beneficial to reduce the number of images required to do a CT scan or MRI. However, fewer images leads to more image artifacts and lower resolution. Others have tried to use a numerical technique called linear interpolation to determine what is in-between the coarser layers of the reduced-image scan, but results are often not satisfactory.

This technology uses a revolutionary numerical technique called a displacement function to interpolate what is in between the coarser layers. Testing has showed it is capable of providing a higher resolution final image than the current state of the art.

FEATURES AND BENEFITS

- **CT:**
  - 80% reduction in images required means less radiation exposure for patients.
- **MRI:**
  - 90% reduction in images required means less patient time in the machine, which means less patient discomfort and lower cost.

INVENTOR PROFILE

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