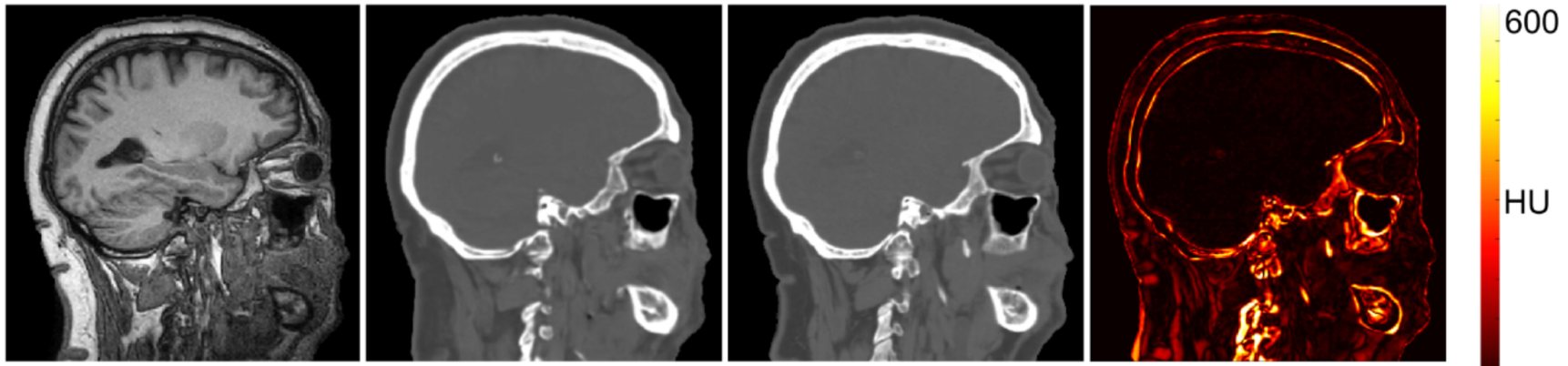
MEDICAL APPLICATIONS

- MR to CT



APPLICATIONS ALL THE WAY

Inpainting Cropped Diffusion MRI using Deep Generative Models

Rafi Ayub,[1] Qingyu Zhao,[1] M. J. Meloy,[3] Edith V. Sullivan,[1] Adolf Pfefferbaum,[1,2] Ehsan Adeli,[1] and Kilian M. Pohl[1,2]

Author information ▸ Copyright and License information Disclaimer

Abstract Go to: ▸

Minor artifacts introduced during image acquisition are often negligible to the human eye, such as a confined field of view resulting in MRI missing the top of the head. This cropping artifact, however, can cause suboptimal processing of the MRI resulting in data omission or decreasing the power of subsequent analyses. We propose to avoid data or quality loss by restoring these missing regions of the head via variational autoencoders (VAE), a deep generative model that has been previously applied to high

Generative Model of Brain Microbleeds for MRI Detection of Vascular Marker of Neurodegenerative Diseases

Saba Momeni[1,2], Amir Fazlollahi[3,4], Leo Lebrat[3], Paul Yates[5], Christopher Rowe[6,7], Yongsheng Gao[2], Alan Wee-Chung Liew[8] and Olivier Salvado[1,9*]

[1] Commonwealth Scientific and Industrial Research Organisation (CSIRO) Data61, Brisbane, QLD, Australia
[2] School of Engineering and Built Environment, Griffith University, Nathan, QLD, Australia
[3] Commonwealth Scientific and Industrial Research Organisation (CSIRO) Health and Biosecurity, Australian E-Health Research Centre, Brisbane, QLD, Australia