

Dr. Soumick Chatterjee

Researcher-programmer Soumick Chatterjee started his career as a software entrepreneur in Kolkata, India, in 2011 while finishing his bachelor's in computer application and a diploma in software engineering at the same time. Then he went on to finish his master's degree in computer science from St. Xavier's College, Kolkata, in 2017 and obtained a PhD in computer science (summa cum laude) from Otto von Guericke University Magdeburg, Germany, in 2022. The title of his thesis was "Reducing Artefacts in MRI using Deep Learning: Enhancing Automatic Image Processing Pipelines". Since July 2022, he has been working as a postdoctoral researcher at the same university and also joining the research institute Fondazione Human Technopole in Milan, Italy this month. He has over 6 years of experience in machine learning and image processing (including medical image processing). His main research application field has been MRI, and he has developed approaches for undersampled MRI reconstruction, motion correction, supervised and weakly-supervised brain tumour classification and segmentation, automatic vessel segmentation using semi-supervised learning, unsupervised anomaly detection, image registration, etc. His research interest also includes the interpretability and explainability of black-box deep learning models, and he has developed the TorchEsegeta pipeline for the same.

Dr. Chatterjee has been part of the winning and second runner-up teams of the CHAOS challenge (IEEE ISBI 2019) and MOOD challenge (MICCAI 2021), respectively, while being part of the team which was one of the Dubai regional finalists at the Hult Prize 2017. He holds several professional certificates from Microsoft and Oracle. He has been a member of the organising committee of the eXabyte 2017 - the tech-fest organised by St. Xavier's College, Kolkata and has been a co-organiser of IEEE SMC's ISACT 2021 and 2022. He has published 22 manuscripts in major journals and conferences, including Medical Image Analysis, Artificial Intelligence in Medicine, Computers in Biology and Medicine, Magnetic Resonance in Medicine, Journal of Imaging, IEEE EMBC, IEEE EUSIPCO, IEEE IPAS, and many more. Further 7 manuscripts are in review for different journals and currently published as ArXiv preprints. He has also presented 28 short papers and abstracts at top conferences like MIDL, IEEE ISBI, ISMRM, and ESMRMB. A strong advocate of open science, all of the codes related to his research are publicly available on GitHub.