



## Curriculum Vitae

Personal information **Samuel Fransson**

### Work experience

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Position: Data Scientist

Employer: Swedish Medical Products Agency

Start date: October 2024

Country of employment: Sweden

Main activities: Scientific Advice, Research and development of AI-tools

Position: Medical Physicist

Employer: Uppsala University Hospital

Start date: 2016

End date: October 2024

Country of employment: Sweden

Main activities: Clinical work, Research and Development at the Radiotherapy Department

### Education and training

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PhD in machine learning for medical image processing

Start date: 2017

End date: 2024

Institution: Institution of surgical sciences, Uppsala University

Country: Sweden

Subject and skills: Machine learning and deep learning research for medical image annotation and segmentation, real-time image processing, and uncertainty estimation.

Medical Physics

Start date: 2010

End date: 2015

Institution: Department of Radiation Sciences, Umeå University

Country: Sweden

Subject/skills: Degree as a Medical Physicist

Master of Science in Engineering Physics

Start date: 2010

End date: 2015

Institution: Department of Physics, Umeå University

Country: Sweden

Subject/skills: Degree as a Master of Science in Engineering Physics

Natural Science program

Start date: 2007  
End date: 2010  
Institution: Liljaskolan, Vännäs  
Country: Sweden  
Subject/skills: High school education

## Additional information

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### Publications

Dynamic contrast-enhanced magnetic resonance imaging may act as a biomarker for vascular damage in normal appearing brain tissue after radiotherapy in patients with glioblastoma, *Acta Radiologica*, 2018

Intrafractional motion models based on principal components in Magnetic Resonance Guided prostate radiotherapy, *Physics in Imaging and Radiation Oncology*, 2021

Patient Specific deep learning based segmentation for magnetic resonance guided prostate radiotherapy, *Physics in Imaging and Radiation Oncology*, 2022

Deep learning segmentation of low-resolution images for prostate magnetic resonance-guided radiotherapy, *arXiv*, 2023

Comparing multi-image and image augmentation strategies for deep learning-based prostate segmentation, *Physics in Imaging and Radiation Oncology*, 2024

Deep learning - based dose prediction for magnetic resonance - guided prostate radiotherapy, *Medical Physics*, 2024

### Projects

Gentle Radiotherapy - Vinnova - Sweden's Innovation Agency

National project to enhance the usage of MRI in radiotherapy. Worked with evaluation of image processing for dynamic contrast enhanced MRI.

ASSIST - Vinnova - Sweden's Innovation Agency

National project to develop tools and services for radiotherapy departments to meet the increasing demand of cancer treatments. Developed, evaluated and published results for a segmentation and radiation dose prediction pipeline within the project.

STARLIT - ITEA3

EU-project for the development of systems for real-time target tracking using MRI for radiotherapy treatments on a combined MR and Linear Accelerator machine. Worked as a project leader to set the technical requirements.

### Memberships

### Other Relevant Information