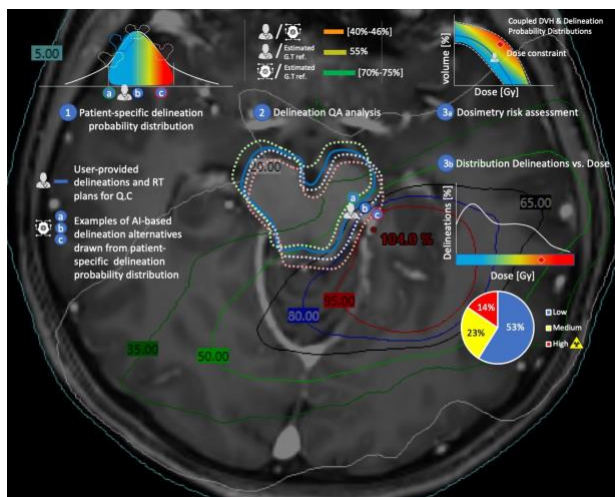


PhD fellowship: A.I. Technologies for Radiation Therapy Quality Assurance

Artificial Intelligence for Automated **QU**ality Assurance in **Radio** Therapy for glioblastoma target volume and organs at risk delineation - **AQUA RT**



Job description:

Applicants are invited for a PhD fellowship at the Medical Image Analysis group of the ARTORG Center for Biomedical engineering Research, University of Bern, as part of a multidisciplinary project in collaboration with the Radiation Oncology department of the University Hospital Bern, Inselspital, and the department of Radiation Oncology of the University Hospital Zürich.

Your job: In this project your role is to design, develop and evaluate a new generation of Deep Learning technologies aiming at enhancing the quality assurance process of radiation therapy planning.

Data will be provided through three large multicenter clinical trials conducted by the European Organization of Research and Treatment of Cancer (EORTC) Brain Tumor Group (BTG) as well as an imaging dataset from the University Hospital of Zurich. In this project you will be working actively with radiation oncology experts as well as with biomedical engineers and other computer scientists to develop and clinically evaluate the solution.

Your experience: Applicants holding a M.Sc. in Biomedical Engineering, Computer Sciences, or similar, and with previous experience in machine learning and medical imaging.

Skills: The ideal candidate is pro-active, highly motivated and independent, and has demonstrable experience in the following:

- Good written and oral communication skills
- Publication record

- Excellent knowledge in Machine Learning, Deep Learning & related GPU frameworks
- Good programming skills
- Excellent English language skills (written and oral)
- Experience working in interdisciplinary setups

We offer: The research will be carried out at the Medical Image Analysis group of the University of Bern. The interdisciplinary group consists of over twenty scientists developing advanced solutions for the betterment of patients suffering from diseases of the central neural system. We offer a unique scientific environment and setup conducting basic, applied and translational research activities.

Switzerland has continuously ranked among the top countries in the world in terms of quality of life, and among the most innovative countries. Particularly, Bern has an excellent reputation in the MedTech area, which is strongly fostered by many initiatives supporting researchers.

Starting date: Immediate or based on availability

How to apply: Interested candidates are kindly invited to send their resume and recommendation letter(s) to mauricio (dot) reyes (at) med (dot) unibe (dot) ch. Note: Please add [PhD-AQUA-RT] to the subject of the email.

Applications must be included in **one single PDF file**, including:

- Motivation letter (cover letter)
- Recommendation letter(s) with contact information
- CV
- Publication list