

Postdoc in Clinical Image Analytics

pRED, Hoffmann La-Roche, Basel Switzerland

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The Position

Roche's Pharma Research and Early Development Informatics team is the bridge between technology and science. We help drive medical innovation and are integral to the realisation of truly Personalised Healthcare (PHC) and the development of innovative treatments for patients.

For our vision to come true, we are looking for motivated two postdoctoral researchers interested in the development of image analysis and machine learning methods supporting our global Personalized Healthcare initiatives in the Ophthalmology area.

The position is situated in the Pharma Research & Early Development Informatics (pREDi) organization, more specifically in the Safety and early Development Workflows (SDW) area and covers the following aspects: working with different imaging modalities applied in the clinical ophthalmology setting, processing and extracting information from images to address key scientific questions around personalized prevention and personalized intervention. The position entails the following main responsibilities:

- Explore and apply computational imaging, novel analytical methodologies, algorithms and solutions development
- Advance our state-of-the-art image analysis algorithms and platforms by driving and contributing to local and global PHC programmes
- Publish at major medical imaging venues and clinical ophthalmology journals (major relevant scientific journals)

Who you are

We are looking for a self-driven scientist with a recent PhD graduation in computer vision, machine learning and/or medical imaging with strong background in applied Mathematics, Statistics, or Software Engineering. Knowledge of image analysis and machine learning is essential together with strong track record on algorithm development and best software engineering practices. You're looking for a company where you have the opportunity to pursue your interests across functions and geographies. The ideal candidate will have the following skills and qualifications:

- In-depth experience with image processing, image analysis and pattern classification
- Good experience with Deep learning applied to image classification and/or image segmentation (TensorFlow)
- Experience in feature engineering, model validation, and integration in end-to-end predictive modelling pipelines (Python, R)
- Ability to work with both open source and commercial solutions, with strong software engineering experience (UNIX, Python, HPC, GIT)
- Capacity to communicate effectively and provide high quality visual representations of achieved results, as well as high quality scientific writing capability