

Internship for Master / Engineering student, Geneva, Switzerland

Development of a Neuroimaging Data Engine with Knowledge Graphs

The Campus Biotech in Geneva is a Swiss center of excellence in biotechnology and life sciences research focusing on three domains: Neuroscience & Neurotechnology, Digital Health and Global Health.

The Campus houses neuroscience laboratories from the Lausanne institute of technology (EPFL), the University of Geneva and from the Geneva University Hospitals (HUG). Within this framework, the Methods & Data facility (<https://hnp.fcbg.ch/home/methods-data>) as part of the Human Neuroscience Platform, provides state-of-the-art neuroimaging data science and expertise to the housed labs.

In the line of the continuous development and improvement of our services, the Methods & Data facility wants to deploy a data engine with advanced web technologies to facilitate neuroimaging data inter-linking.

Consequently, the Methods & Data facility offers a 6-month Master internship. The candidate should be engaged in a **computer science university / engineering school curriculum at Master level, or equivalent**.

Goal: Develop a prototype neuroimaging data platform implementing the FAIR principles (findable, accessible, inter-operable and reusable) leveraging existing technologies

Tasks:

- Help implement knowledge graph technologies by integrating existing tools and data description frameworks
- Implement this architecture locally or/and in the cloud
- Be open to both learn basic neuroimaging / dev ops within a team of neuroimaging experts and developers
- Document the resulting code and implementation process

Skills

- [Required] Experience with Python
- [Optional] Experience with knowledge graphs and semantic web technologies and formats (e.g. RDF, SPARQL)
- [Optional] Experience with relational database management systems
- [Optional] Experience with Flask / Javascript
- [Required] Proficiency in English

Application: send a resume and a cover letter to [methods\(at\)fcbg.ch](mailto:methods(at)fcbg.ch)

Starting date: February 2021 at the earliest, exact starting date flexible

