

The ESRF, the European Synchrotron, an international research facility based in Grenoble, is currently seeking to have a:

## **Trainee in software engineering** **“Internship (6 months)”**

### **INTERNSHIP DESCRIPTION**

*Within the Beamline Control Unit and Structural Biology Group and under the supervision of Marcus Oskarsson and Daniele de Sanctis, the topic of the internship is the following:*

Design and implementation of a user interface for the operation of a robotic sample changer, based on a user-friendly interface, a sample tracking database and industrial standard robots. The application is dedicated to scientists and users of the ESRF macromolecular crystallography beamlines to control the robot and track samples.

The user interface will be built in an existing application framework developed at the ESRF, based on a client-server architecture developed in Python and ES6. The backend is built on a Flask micro web framework and the front end is built with React and Redux.

### **PROFILE, SKILLS**

- You are a student in Computer science (BAC+4), software engineering or similar field with:
  - Demonstrated User Interface design skills
  - Demonstrated Javascript and Python programming skills
  - Strong communication skills, works well in teams, and quickly adapts to new technologies
  - Knowledge of contemporary programming environment skills including for instance: REST APIs, GitHub, Slack, Express, React, Angular, React, state management libraries (redux/other), Node, HTML/HTML5, Javascript, git (or use of other repository)
  - IDE familiarity and usage
  - Code repository usage, build system (i.e. webpack)
  - Knowledge of current technology industry trends

***If you are interested in this position, please send your CV and cover letter to:***  
**[marcus.oscarsson@esrf.fr](mailto:marcus.oscarsson@esrf.fr) / [traineeship@esrf.fr](mailto:traineeship@esrf.fr)**