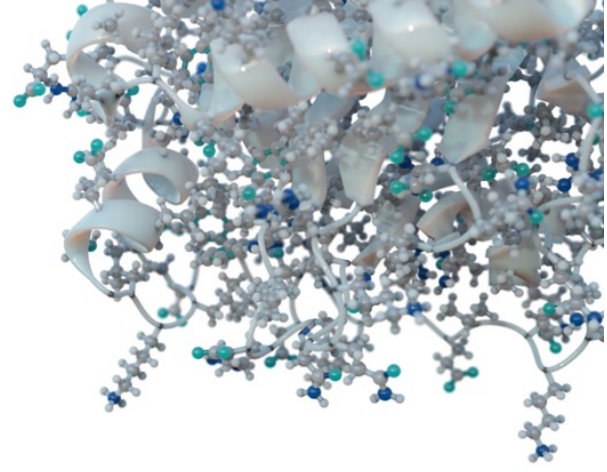


DEVELOPMENT OF COMMUNICATION PROTOCOLS BETWEEN HARDWARE AND SOFTWARE ELEMENTS OF A SELF-DRIVING LAB



ABOUT THE PROJECT

We are seeking a motivated Bachelor Student (f/m/d) to join our project team and work on a groundbreaking project to establish communication between an automated workstation (consisting of a liquid handling robot, an analytical device, incubator and centrifuge) and a software unit to demonstrate a closed design-build-test-learn cycle. This innovative system will automate the development of bioprocesses, significantly improving efficiency and reducing time-to-market for new drugs and therapies.

POTENTIAL TOPICS FOR STUDENT CONTRIBUTIONS

- Developing communication protocols between the automated workstation elements, and the software unit: This involves designing and implementing protocols (i.e. Python scripts) that allow these devices to exchange data and instructions seamlessly.
- Developing communication protocols between the liquid handler of the automated workstation, an external analytical device (HPLC), and the software unit: This involves designing and implementing protocols (i.e. Python scripts) that allow these devices to exchange data and instructions seamlessly.

IMPACT OF SELF-DRIVING EXPERIMENTATION IN BIOPROCESS DEVELOPMENT

Self-driving experimentation is transforming the bioprocess development landscape by automating the iterative process of designing, building, testing, and learning from experiments. This approach enables scientists to focus on analyzing data and making informed decisions, while the system handles the tedious and time-consuming tasks of preparing samples, running experiments, and analyzing results. As a result, self-driving experimentation is accelerating the development of new (bio)processes and improving the quality and reproducibility of research.

JOIN OUR PROJECT TEAM AND REVOLUTIONIZE BIOPROCESS DEVELOPMENT WITH SELF-DRIVING EXPERIMENTATION!

- Gain hands-on experience in designing and implementing complex software systems.
- Contribute to a cutting-edge interdisciplinary project that has the potential to revolutionize bioprocess development.
- Work with a team of experienced researchers and engineers in a young company.
- Get exposure to the latest technologies and methodologies in automation, data science and biocatalysis.
- Enhance your technical skills and expand your professional network.

START

Now

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