# Student Assistant (Hiwi) position

## Summary

Student assistant for software development à 40 h per month at ISM (m/w/d).

The *flow modelling and control group*[1] at the *institute of fluid mechanics* is looking for a student assistant (HiWi) in the area of data visualization and continuous integration (CI).

## Background

### Continuous Integration

xROM[2] is a software package for the analysis of fluid flows and reduced order modeling. To deliver new changes on the software package quickly and reliably to our project partners, xROM shall be equipped with a continuous integration pipeline. The student's task will be to

- explore different CI solutions and evaluate their suitability for xROM
- implement, test, and document a CI workflow for xROM

### Dashboard visualization

In recent years, the interactive visualization of data via so-called dashboards has become extremely popular. Therefore, a second task is the design, implementation and test of prototype dashboards for xROM via the open-source library Dash[3]

## Experience

Mandatory:

- advanced programming skills in Python
- version control with Git and Github/Gitlab/Bitbucket
- one or more of the following CI frameworks: Github Actions, Travis CI, Jenkins

Preferred:

- creating and managing software containers with Docker and/or Singularity
- working with JupyerLab
- experience using Plotly and Dash
- experience using PyTorch

## Contact information

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1   https://www.tu-braunschweig.de/ism/arbeitsgruppen/flow-modelling-and-control

2   https://www.richardsemaan.com/home/software/

3   https://dash-gallery.plotly.host/dash-oil-and-gas/