

Bachelor thesis

Topic: **Authentication Services on Secure Cloud**

The experiments will be conducted on an Openstack-based Cloud: DigiMed Cloud hosted at LRZ. Openstack is a widely-used cloud orchestrator that is used to manage the resources on the cloud. A graphic interface is to be developed to access computing resources on the Openstack-based cloud and a storage system. The graphic interface should ideally run inside a container. Your tasks in more details:

- Study the background on cloud computing;
- Study the background on virtualisation including containerisation;
- Get to know the basics of Openstack including: usage of its web UI and command lines;
- Implement federated authentication services between your framework, the cloud and the storage;
- Develop a graphic interface.

The thesis is to be completed within a timeframe of 3~6 months. The thesis needs to be written in English.

Requirements:

- Major in Compute science;
- Familiar with one of the programming languages: Python, Golang or C/C++.

Organisatorisches:

Aufgabensteller:

Prof. Dr. D. Kranzlmüller

Anzahl Bearbeiter: 1

Betreuer:

Dr. Naweiluo Zhou

Dr. Peter Zinterhof