SUPER – Stuttgart University Program for Experiencing Research
Project Information

Institute’s Information
Name of Institute: High Performance Computing Center Stuttgart (HLRS)
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Duration of Project/Number of Students
June/July: 3
June/July/August: 3
Number of Students: 3

Name of Project: Virtual and Augmented Reality

Beneficial Skills & Knowledge: Applicants should be familiar with an object oriented Programming language. If possible C++

Description of Work
We can host up to three students next summer. The projects they will work on are briefly outlined below:

CSI/Dexter at HLRS: Together with forensic experts from the NFI (Amsterdam) and UTM (Toronto) you will be working on reconstructing and visualizing blood trajectories.

Parallel Visualization: You will be developing visualization modules such as a particle tracer for a visualization system which is running on HLRS Supercomputers and see your results on VR HMDs and in our CAVE.

Driving Simulator: You will be working on an OpenSCENARIO implementation. This work will be done in close collaboration with Porsche and/or Daimler.

CAD/VR integration: Together with Thyssen-Krupp Elevators, you will be developing an interface from SolidWorks to our Virtual environment which allows interactive changes and immediate analysis of static and moving geometry.

3D Scanning and Simulation: You will be working with 3D scanners to derive computational models in order to reconstruct car accidents.