SUPER – Stuttgart University Program for Experiencing Research
Project Information

Institute's Information

Name of Institute: High Performance Computing Center Stuttgart (HLRS)
Contact Person: Uwe Wössner
Phone: +49-711-685-65790
E-mail: woessner@hlrs.de

Duration of Project/Number of Students

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<th>June/July</th>
<th>June/July/August</th>
<th>Number of Students</th>
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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.

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.