Siva Kartheeka Sreerama

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Nationality: Indian •Sex: Male

Education

Graduate — **Bergische Universität Wuppertal, Germany**

M.Sc in Computer Simulation in Science, 10/2013 - 11/2016

Modules: Computer simulation, Computer science, Numerical methods and Computational fluid dynamics

Undergraduate — **Jawaharlal Nehru Technological University, India**

B.Tech in Mechanical Engineering, 09/2009 - 07/2013

Research projects and experience

Master thesis — **Worked under Prof. Dr. Armin Seyfried (seyfried@uni-wuppertal.de), Bergische Universität Wuppertal, Germany.**

10/2015-10/2016

Examination of load dependent exit choice decisions of pedestrians - A virtual reality study: The objective of the thesis is to understand what drives a human being to choose a particular exit or to change his exit choice midway through a process. Additionally, linear discriminant analysis is performed to compare the results with real experiments.

The draft and working files are available at https://github.com/sivakartheek/VirtualReality-OculusRift

Tools: Software: Google Sketchup, Vizard, Python Programming, R Programming

Hardware: Oculus Rift Headset, Gamepad

Course project (BUW, Germany) — 10/2015 - 04/2016

Simulation of 3-D scalar ¢4 theory for a two component scalar : The 3-D grid lattice structure is developed and simulated by using monte carlo simulation method (Hybrid over relaxation algorithm is used)

Coding : C/C++ with MPI interface

Course project (BUW, Germany) — 12/2014 - 03/2015

Design and analysis of venturi nozzle: In this project a venturi model is designed, meshed and analysed for different volume flows of a fluid. The simulated results are compared with the Analytical solution.

Tools: HyperMesh, OpenFoam and ParaFoam

Course project (BUW, Germany) — 04/2014 - 10/2014

Analysis of 2D dam break waves: In this project a dam break model was simulated with and without an obstacle by using SPhysics simulation code based on smooth particle hydro dynamics simulation method. The effect of dam break waves was also analysed.

Tools: SPH code with Fortran(Modelling) and ParaFoam

Course project (BUW, Germany) 01/2014 - 04/2014

Linear regression analysis by using least square and correlation: The dataset from a file containing details of 420 car Models was extracted for analysis by using least square method. The jobs are submitted to the grid by using JDL and then plotted the graph for correlation to analyze Engine size vs. average mileage.

Project files are available at:
https://github.com/sivakartheek/GridComputing_LinearRegression

Coding: Python and Shell script(submitting jobs at grid (GRIDKA))

Course practicum (BUW, Germany) 10/2013 - 04/2014

Programming of numerical analysis and simulation: In this practicum the problems related to numerical methods are solved and analyzed.

Coding language: MATLAB

Skill sets

- Good programming knowledge in C, C++, Python, Fortran and MATLAB
- Practical experience in UML, unit testing and design patterns.
- Experience in paralleling programming with MPI
- Expert in designing virtual reality environments using Vizard and Unreal engine.
- Flexible to work in Windows and Linux.
- Documentation using Ms office and LaTeX.

Additional software's: CATIA V5, HyperMesh11,12 AutoCAD, ANSYS and OpenFoam

Languages

- Telugu (Mother tongue), English (Fluent) and Deutsch (Intermediate)
- Other Languages - Hindi and Tamil

Strengths and activities

- Ability to work in multi culture and multifunctional team
- Interested in updating my software skills
- Dedication towards work
- watching shows, travelling , cooking and programming

Wuppertal, Germany.

(SivaKartheeka Sreerama)