europass Curriculum vitae

Personal information

Kislaya Ravi

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Date of birth 24 February, 1991 | Nationality(-ies) Indian

Last update May 16, 2019

JOB APPLIED FOR

Working Student

EDUCATION AND TRAINING

Oct 2016 – March 2019

Master in Science, Computational Science and Engineering

Technical University, Munich, Germany

- Multidisciplinary program with confluence of Computer Science, Applied Mathematics and an application field of once choice
- Mathematical modelling, Numerical analysis, Efficient Algorithms, Computer Architecture, Software Design and Implementation, Validation, and Visualization of results
- Master's Thesis: Neural Network Hyperparameter Optimization using SNOWPAC
  - Developed a mixed integer trust-region optimization tool in C++ to optimize non-linear constrained mixed-integer optimization problems
  - Used the developed code to optimize hyperparameters of a neural network and compare it with existing methods

June 2009 – June 2014

Bachelor of Technology, Mechanical Engineering
Master of Technology, Machine Design

Indian Institute of Technology, Banaras Hindu University, Varanasi, India

- Both master and bachelor degreee awarded as part of Integrated dual degree course
- Basics of mechanical engineering like machine design, fluid dynamics, solid mechanics, production engineering, operational methods, etc.
- Masters Thesis: Axi-symmetric dynamic response of buried orthotropic cylindrical shells due to compressive wave using Finite Difference techniques.

  - Implemented code in Matlab to solve shell equation and studied the behavior of lifelines like sewage pipes, water pipelines, etc. during earthquakes

WORK EXPERIENCE

Aug 2017 – Sep 2018

Research Assistant

Engineering Risk and Analysis
Technical University Munich, Germany
- Project BAYES: Bayesian updating of engineering models with spatially variable properties
- Generated random field in C++ for given mean and covariance operator and solved corresponding elliptical and parabolic PDE using FEniCS
- Made API in Python by wrapping C++ code to be used for inverse problem solution

July 2014 – July 2016

Assistant Manager

Maruti Suzuki India Limited, Gurugram, India
- Design and Development of Exterior Trims for New Model Development
- Co-ordinated and managed external vendors for timely development
- Understood various design standards, techniques and pipelines in automobile sector

RELEVANT PROJECTS

June 2017 – July 2017

Lattice Boltzmann Method

Technical University Munich
- Topic: Simulation of Blood Flow through Aorta using Lattice Boltzmann Method
- Implemented Lattice Boltzmann method in C++ for unstructured grid and parallelised the code using MPI
- Decomposed the unstructured domain for proper load balancing
- Got acquainted with various techniques used in parallel programming and High Performance Computing

September 2018 – October 2018

Blind Deconvolution of Blurry Images using CUDA

Technical University Munich
- Topic: GPU Parallelisation of Total Variation Blind Deconvolution using CUDA
- Constructing sharp image from blurry image without prior knowledge of degradation
- Implemented and tuned the code in C++ CUDA framework
- Learned basics of OpenCV, CUDA, profiling and optimization techniques in CUDA

COMPUTER SKILLS

Programming Language: C, C++, Python, Matlab, Bash Scripting

Frameworks/ Tools: PyTorch, CUDA, OpenCV, CMake, Git

Libraries: ARPACK++, GNU Plot, BOOST, FEniCS, MPI, OpenMP, METIS

Softwares ans Operating Systems: LaTeX, Microsoft Office, Paraview, Windows, Linux

SCIENTIFIC PUBLICATIONS

Uttam, Vishad, Jain, Nitin, and Ravi, Kislaya. Phenomenon of Corrosion in Chrome Plated ABS Parts. No. 2016-28-0066. SAE Technical Paper, 2016.

PERSONAL SKILLS

Mother tongue(s): Hindi

Other language(s)

	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
German	A2	A2	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference (CEF) level

Organisational / managerial skills
- Team Leader: Lead the team which represented IIT (BHU), Varanasi in SAE Efficycle 2012, a national level three wheeler efficient vehicle design competition
- SAE Events Organization: Organized various workshops
- Training and Placement Representative Mechanical IDD, 2012

Teaching Experience: Tutorial of Mechanical Measurements at IIT (BHU), Varanasi in 2012

Hobbies: Forró Dancing, Table Tennis, Jogging