# Kedar Wagh

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## Education

**Indian Institute of Science**                                      **Bangalore, India**
*PhD, CGPA – 8.6/10*                                                  *2020–Present*

**Relevant Coursework:**
○ Computational Gas Dynamics, Finite Element Methods, Computational Fluid Dynamics, Numerical Linear Algebra, Fluid Dynamics, Gas Dynamics

**Savitribai Phule Pune University**                                  **Pune, India**
*Bachelor of Engineering, (Mechanical, CGPA – 8.78/10)*               *2015–2019*
First Class with Distinction

## Research Interests

Higher order numerical methods for conservation laws • Shock capturing algorithms for hyperbolic conservation laws • Scientific machine learning

## Industry Experience

**Forbes Marshall Ltd.**                                             **Pune, India**
*Research Project Intern*                                             *Jul 2018 - Jun 2019*
○ Experimental and CFD analysis of multiphase flashing flow through steam traps. The study was carried out to improve the outlet geometry of steam traps based on the above analysis.

## Teaching Experience

**Indian Institute of Science**                                      **Bengaluru, India**
*Teaching Assistant for DS226: Introduction to Computing for AI and ML*   *Aug 2022 - Dec 2022*
○ Designed and evaluated problem sets, quizzes and exams. Conducted tutorials
○ Course covered wide range of topics starting from IEEE floating point to Deep Neural Networks

**NCM Workshop**                                                      **IISER-TVM, India**
*Tutorial Assistant*                                                  *Sept 2022*
○ Software support for tutorial session on ParMooN (in-house FEM package) in NCM Workshop on "Numerical Methods for Partial Differential Equations"

## Referee Service

○ 10th International Congress on Industrial and Applied Mathematics (ICIAM) 2023, Tokyo

## Workshops

○ Participated in NCM Workshop on "Numerical Methods for Partial Differential Equations" held in September 2022 at IISER-TVM
○ Participated in NSM India CFD GPU Bootcamp held in March 2022
○ Participated in IGP/IWR School 2021 on "Hardware Aware Scientific Computing" in October 2021

## Co-curricular Activities

**DRDO National competition:**                                       **Pune, India**
*Group Lead*                                                          *Jan 2018 – Apr 2018*
○ Ideation and design of an unmanned military rescue vehicle
○ Project qualified for the semi-final stage; INR 10,000 prize won

**SUPRA SAEINDIA, formula race-car competition**                     **Delhi, India**
*Team Member*                                                        *Jun 2016 - Jul 2017*

○ Designed and manufactured chassis for a formula type race-car and competed at National level

## Extracurricular Activities

**Agumbe Rainforest Research Station (ARRS)**      **Karnataka, India**
*Research Volunteer, Telemetry team*      *March 2020*

⇒ Field work including data collection and radio tracking of King Cobra snake in rainforest

○ Successfully completed the **Basic Herpetology** course from INHER Pune, India, July 2019

○ Successfully passed **Grade 8 Rock and Pop Electric Guitar examination** conducted by Trinity School of London in November 2017.

## Skills

○ **Programming languages:** C++, Python

○ **Tools:** MATLAB, ANSYS, Solid Works, Paraview, Pointwise

○ **Languages:** English (fluent), Hindi (fluent), Marathi (fluent), German (basic)

## Achievements

○ Secured all India rank of 1039 in GATE 2020 (score: 773/1000) in Mechanical Engineering stream

○ Received INSPIRE Scholarship of Central Government of India in 2015.

## Community Service

○ Delivered a talk on research opportunities for youth for ISHRAE Thane Chapter in April 2022.

## References

**Prof. S. V. Raghurama Rao (PhD Supervisor)**      **raghu@iisc.ac.in**
*Associate Professor, Department of Aerospace Engineering*

**Prof. Sashikumaar Ganesan (PhD Supervisor)**      **sashi@iisc.ac.in**
*Associate Professor and Chair, Department of Computational and Data Sciences (CDS)*