

# Ankush Kulshrestha

## Senior CFD Engineer

My professional interests are primarily in the area of CFD/CAE with 8+ Years of professional experience in the same, willing to take senior/leadership roles.



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## WORK EXPERIENCE

### CFD Engineer - Advanced SISW

07/2017 – Present

Pune, India

- Support product development in testing and documenting the functionality of new features of CFD tool STAR-CCM+.
- Create and design test cases to understand specifications and provide practical design solutions through uncovering code defects in the process and working with developers to resolve them.
- Responsible for leading efforts on cross-collaboration projects like:
  - Vehicle wading simulations (DFBI)
  - Wind-screen wiper simulations (Overset grids)
  - Car dip paint (rigid body motion)
  - Drag prediction for high speed vehicles using AMR
  - Gear pumps (Multiphase flows)
  - Thermal management
- Collect feedback from the team for Retrospective during each quarter, create surveys and highlight areas for improvement.
- Identify and implement best practices through root cause analysis and data interrogation.  
Organized team engagement sessions through quiz, games and demo case studies.

### QA Engineer

CD-adapco

11/2014 – 06/2017

Pune, India

- Testing and validating the solver physics and capabilities for each dev/release cycle in Integrated Meshing projects like DFBI, Overset Grids, Rigid Body Motion, Morphing, Virtual Disk, AMR, etc.
- Creating and designing test cases to test the functionality of new features and providing feedback on the same.
- Reporting bugs/regressions and other code defects for their risk assessment and mitigation.
- Conducting workshops to demonstrate new tool capabilities through case studies, test reviews, tool demos, etc.
- Led efforts on investigating the outcomes of simulation data through numerical/analytical methods.

## WORK EXPERIENCE

### **Project Intern**

Shell Technology India

08/2014–10/2014

Bengaluru, India

- Worked with PFAS (Pipeline, Flow Assurance and Subsea) team on the joint project between Cd-Adapco and Shell.
- Performed CFD simulations for a Tension Leg Platform to study VIV motion under different sea conditions.
- Results showed improved accuracy, benchmark experimental data was also available with the group.

### **MS Research Scholar**

Dept. of Ocean Engineering, IIT Madras

01/2011–07/2014

Chennai, India

- Full-time research scholar
- Investigation of shallow water effects on maneuverability of a container ship using CFD.
- Thesis titled "*Numerical Simulation of surface ship maneuvering in shallow water*". Overall CGPA 8.63

## OTHERS

- Driving team meetings in absence of Lead/manager.
- Delivering presentations on best practices for post-processing the simulation data.
- Highlighted gaps/possible improvements in the structure of data reporting, information sharing and access to sim files.
- Organized team engagement sessions through quiz, games, surveys and demo case studies.
- Mentored and trained team members on testing best practices, bug triage, documentation, effective communication, etc.

## EDUCATION

**MS (Ocean Engineering)**

04/2014 - 01/2011

Indian Institute of Technology, Madras, Chennai

**BE (Aeronautical Engineering)**

06/2006 – 12/2010

The Aeronautical Society of India, New Delhi

## ACHIEVEMENTS

**Social Secretary**

2012-13

Cauvery Hostel, IIT Madras

**MS Councillor**

2011-12

Placement Core (Engineering), IIT Madras

**All India Rank - 2**

2010

GATE XE (Engineering Sciences)

## REFERENCES

Dr. Jitendra Kumar Gupta

Program Manager, Shell Technologies Ltd, Bangalore

"He was my supervisor at Shell"

Prof. P Krishnankutty

Research Guide at IIT Madras

"He was my research guide at IIT Madras"

Mr. Gianluca Bulletti

"He is my manager at SISW/CD-adapco, London"