

## OBJECTIVE

Skilled Mechanical Engineer looking for full time positions in Mechanical and Aerospace Engineering. Willing to relocate and travel.

## SUMMARY:

- Proficient in commercial software like FloTHERM, FloVENT and Fluent to develop a detailed CFD model.
- Research experience in design and development of thermal and aerodynamic systems with in-depth understanding of fluid mechanics concepts applied to various automobile and IT equipment.
- Excellent interpersonal and communication skills both written and verbal. Strong analytical and quantitative skills with ability to envisage and effectively communicate the big picture.
- Self-starter, versatile and enthusiastic learner and a team facilitator.

## EDUCATION

### Master of Science in Mechanical Engineering

University of Texas at Arlington (UTA)

Dec, 2015 (Expected)

GPA: 3.5

Thesis Title: Designing a Windbreaker to Reduce High Speed Wind Loading on a Modular Data Center.

### Bachelor of Technology in Aerospace Engineering

SRM University, India

May, 2013

GPA: 3.5

Bachelors Project: Turbulent drag reduction using U-Shaped riblets over a symmetrical airfoil.

## COMPUTER SKILLS

- |                           |                 |               |
|---------------------------|-----------------|---------------|
| • FloTHERM                | • FloVENT       | • Fluent      |
| • CATIA                   | • SolidWorks    | • Pro-E       |
| • MATLAB                  | • C             | • CNC         |
| • NI Multisim             | • ANSYS         | • Mathematica |
| • Word, Excel, PowerPoint | • Linux(Ubuntu) |               |

## WORK EXPERIENCE

**Teaching Assistant:** CAD Lab, MAE Department, University of Texas at Arlington

Dec'13- Present

- Assisted undergraduate students with engineering concepts and CAD software tools.

**Graduate Teaching Assistant:** MAE3318 Kinematics and Dynamics,

Sep'14 - Jan'15

**Research Volunteer - UT Arlington**

Sep'13- Present

- Generation of detailed CFD model of IT compartment using commercially available CFD code.
- Improved cooling and ventilation for an IT compartment placed at high altitude and subjected to various temperatures during summer and winter.
- Achieved significant reduction in wind loading over a Modular Data Center (MDC) placed in very high speed wind (100 mph) by modeling a fence structure for MDC.
- Assisted in retrofitting servers to use as high processing computers for CFD simulations.
- Studied effects of micro vortex generator array over a symmetrical wing.

**Mechanical Intern - Bharat Heavy Electricals Limited**

May'12- Jun'12

- Gained extensive knowledge in the manufacturing process of Gas Turbines involving product assembly and its quality control.
- Learned basic CNC machine coding for the production of various gas turbine parts.

**Mechanical Intern - Rane Engine Valves Ltd**

May'12

- Gained knowledge in the manufacturing process of Automobile spare parts and also bi-metal construction and hot forging method used to make engine valves.
- Exposed to different surface finishing techniques for polishing the various products that are manufactured.

## RELEVANT COURSE WORK

Finite Element Methods

Fluid Dynamics

Design Optimization

Control System Components

Computational Fluid Dynamics

Gas Dynamics

Manufacturing Technology

Thermodynamics

TQM and Reliability Engineering

## ACCOMPLISHMENTS

- First prize in making a remote controlled vehicle to cross a rough terrain in minimum time

Jan 2012

- A paper on “Flow Optimization and Energy Extraction” got selected for presentation in International Conference on Aerodynamics and Hydrodynamics’12 held at Bangkok on 22-23 December, 2012.

#### **ACADEMIC PROJECTS**

- Project:** Design of cooling and ventilation for telecommunication shelter at high altitude April’15- Present.
- Steady state simulations were carried out to optimize the location of exhaust louvers to keep the hydrogen concentration within the industrial limits in the battery compartment.
- Project:** Designing a Windbreaker to Reduce High Speed Wind Loading on a Modular Data Center Nov’14- Present.
- CFD modeling and analysis of Modular Data Center and fence done using FloTHERM.
  - Optimization of variables like fence location, height, and porosity was done to achieve permissible wind loading on the MDC.
- Project:** Laptop cooling fan with feedback control to reduce battery consumption Nov’14
- The circuit simulation was carried out using Multisim software emphasizing on using commercially available components to make a feasible circuit for production and testing.
- Project:** Computational study of Micro Vortex Generator array on NACA 0012 wing Sept’13- Aug’14.
- A study was conducted on a symmetric wing model with the micro vortex generator array modeled in CATIA and simulations carried out in Fluent to obtain the location for best lift curve and low drag component.

#### **ACTIVITIES:**

- Cyber coach volunteer at Arlington Public Library April’15- Present
- Event manager of Aerospace Engineers Association at SRM University 2012 - 2013
- Designed and fabricated a water rocket launcher for “Sky Knockers”, in Aerospace Technical Fest at SRM University Feb’11.