

# SRIVATSA CHAKRAVARTHY

401 Stasney St, Casa Del Sol Apt 502, College Station, Texas 77840

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## OBJECTIVE

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Seeking a summer internship position in a high quality engineering environment where my work experience and academic strength will aid in the organizational operations

## EDUCATION

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**Texas A&M University**, College Station, Texas, USA May, 2017  
Master of Science in Mechanical Engineering  
Cumulative GPA: 4.0/4.0

**National Institute of Technology, Karnataka (NITK)** Surathkal, India May, 2013  
Bachelor of Technology in Mechanical Engineering  
Cumulative GPA: 8.13/10 (3.45/4.0)

## WORK EXPERIENCE

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**Caterpillar India Private Limited**, Chennai, India Jul, 2013-Jun, 2015  
Associate Engineer- Design

- Designed Fabrication components of Track Type Tractors
- Liaised with Offsite Drawing Quality on checking and releasing of new drawings
- Engaged in Material and Cost Saving activities through process optimization or material change

**Perkins India Private Limited**, Aurangabad, India Jan, 2014-Dec, 2014  
Design Engineer

- Acted as a Lead Contact for design and detailing of Engine Components
- Involved in localization of Engine Components – Design, Development and Validation for Fabrication, Extrusion, Castings and Filters that resulted in 65% components localized with a substantial cost benefit
- Supported in Bill of Material(BoM) cross functional activities that involved keeping the BoM updated

**Volkswagen Co**, Pune, India May, 2012-Jun, 2012  
Research Intern

- Studied the effect of radiator flaps on cooling and performance of V6 and Inline Engines
- Involved in Cost and Material Saving activities such as radiator headers and gear shift enclosure

**General Motors India**, Bangalore, India May, 2011- Jul, 2011  
Research Intern

- Modelled a 2D model of the Condenser and Evaporator system using MATLAB that predicted all thermodynamic properties
- Generated a 1D model of the complete HVAC system on Excel

**Indian Institute of Science**, Bangalore, India May, 2010- Jul, 2010  
Research Intern

- Development of improved brush used in a vacuum cleaner to optimize the flow rate
- Analyzed different designs before reaching a conclusive design that provided 7% improvement in efficiency over baseline

## SKILLS

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- Languages: C, MATLAB
- Applications: ANSYS workbench and analysis, Pro-Engineer and Pro-Mechanica, CATIA
- Spoken Languages: English, German, Hindi, Kannada, Tamil

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## SELECTED PROJECTS

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### **Improving Heat Transfer through fins by use of Shape Memory Alloys**

- Study to show improvement of fin efficiency and effectiveness by using Shape Memory Alloys
- Looking at applications that involves heat transfer from object to surroundings, shape memory alloy fins proved to be more beneficial

### **Study of Physics of Free Air jet using Analytical, Numerical and Experimental Methods**

- Physics of Flow out of a nozzle into a stationary medium
- Built experimental setup to understand velocity and flow in the cone of influence
- MATLAB code to understand flow of ODE linearized through Newton Linearization

### **Composite Wall Design and Fabrication of Cold Storage Unit**

- MATLAB model to understand the heat flow across layers and possible applications in Cold Storage units and Electric Batteries

### **Self-Straightening Plate using Arduino processor**

- Plate straightened when there was mechanical imbalance by measuring the displacement through an accelerometer

### **Ackerman Steering Mechanism modelled using CATIA**

- Involved using CATIA to understand the Ackermann and Reverse Ackermann Steering mechanisms, developing velocity and acceleration profiles at each point of the mechanism

## RELEVANT COURSEWORK

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### **Graduate:**

Intermediate Heat Transfer, Combustion Science, Thermodynamics, Experimental Heat Transfer, Fundamentals of Material Science, Linear Algebra

### **Undergraduate:**

Thermodynamics, Mechanics of Machines, Theory of Elasticity, Structures of Materials, Material Science and Metallurgy, Manufacturing Processes

## HONORS

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- Recruited into Caterpillar through the Leadership and Technical Development Program(LTDP),2013
- Represented club and school at State Level Basketball competitions, 2004-2008
- Delegate at the 7<sup>th</sup> Annual Youth Assembly held at the United Nations, New York, 2010
- Toastmasters Competent Communicator and Competent Leader
- Chief Editor of LTDP Magazine and the Toastmasters Magazine

## PROFESSIONAL ACTIVITIES

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- IEEE executive committee, NITK, 2010-2012
- Part of Toastmasters Club, EDC-I Chennai, 2013-2015
- Director of Marketing, Indian Graduate Student Association, Texas A&M University, 2015-Present
- Member of Society of Automotive Engineers(SAE), 2009-2013
- SPICMACAY volunteer, 2009-2013

**ELIGIBLE TO WORK IN THE UNITED STATES OF AMERICA UNDER OPTIONAL PRACTICAL TRAINING**