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CGPA: 6.93/10.00

#### **EDUCATION**

## **Indian Institute of Technology Indore**

B.tech, Mechanical Engineering, Jul'09 -May'13

- Member of Society Of Automotive Engineers (SAE)
- Founder, Student Entrepreneurship support cell, Indian Institute Of Technology Indore
- Organizing member of Fluxus Annual cultural/technical festival

#### RELEVANT WORK EXPERIENCE

Galideo Labs Nov'16 - present

Founder

Galideo is a research driven startup where we aim to build disruptive technologies. We are currently working on projects around the future of food & programmable matter.

## Banaao – A maker's playground (Co-founder)

Dec'15- Oct'16

Head, research & product development

Banaao (trans. MAKE) is the first makerspace in Gurgaon where we provide technical & hardware resources in the form of membership etc. I was involved in building innovations, prototypes of new ideas. We have 91Springboard as our investor.

#### Qulp (startup)

Hardware Lead

Was responsible for hardware design and development. Worked on one of the projects:-

• KNOBBER: - a stove timer to notify user of the completion of cooking activity through audio sounds and phone notifications with customizable time settings. It sits independently on the surface of the stove without interfering with the stove knob.

Inventlo.co Oct'15

Founder

A web platform simplifying the process of discovering creative hardware technology products developed by start-ups and crowd funded teams. The platform has been under development with access to a few teams to iterate and improve features. The platform could not be scaled as Indian hardware startup community is still developing.

# Sherlock Holmes and Internet of Things (with Columbia Storytelling lab) Sept'15-Oct'15

IOTBLR team

- Hacked and created IOT enabled prototype of the rotary phone. Code is available in open source repository at github.com/IoTBLR/Sherlock.
- Short term mentor at MOOC on same hosted at novoed.com

#### **Endurance Technologies Private Limited**

Design and project Engineer, Suspension R&D

Jun'13 – Mar'15

- Handled shock absorber designing for new products and technologies in 4 wheeler, 3 wheeler and 2 wheeler division
- Independently managed the four wheeler design group
- Project in charge for designing and prototyping of shock absorber of Bajaj Auto Limited's first quadri-cycle and subsequently taking the product into production by working alongside the projects team for planning & deployment of automation welding, machines' framework and testing of product on-line.
- Introduced new concept of user adjustable damping in shock absorber with two indigenous designs
  - ✓ Electronically adjustable rebound damping in gas filled shock absorber
  - ✓ Triple tube manually adjustable rebound and/or compression damping design was identified for **Intellectual property reservation**.
- Developed shock absorbers for four wheeler projects of Bajaj

- Also worked on the conceptual design of *Magneto Rheological* (MR) fluid based Shock absorber design *first Indian Firm to develop*.
- Managed production line operations for smooth and continuous working by framing weekly production charts.
- Team leader for conducting prototyping and testing activities at customer's end. On the spot fitting and analysis completion for four and two wheeler shock absorber systems.

#### **MIT Media Labs India Initiative**

Participant at the design Innovation workshop

January'14

- Amongst the 300 selected for the workshop out of 3500 applications & selected for Fab Lab track
- Created "MARK ASSIST" a robotic drafter for sketching complex shapes on large frames

#### Mahindra & Mahindra

Summer internship at manufacturing plant

May'12 - June'12

- Elimination Of Firing Test and Testing Of Leakage in Cylinder Head
- The project concentrated on proposing and implementing a method to eliminate the fire testing of engine for reducing man hours and cost saving.

#### **Independent Projects**

**PLUGG**: Plugg are ear plugs designed to absorb pressure fluctuations and consequent ear-pain developed while flying. Using material science and fluid mechanics, the plugs acts as *shock-absorber*. The technology has been filed for technology patent.

## **ACADEMIC PROJECTS**

## **B.Tech Final year project**

July'12 - April'13

- The study on mixing of Air-fuel in the carburettor and increasing it through mathematical and linear optimization
- Further the results were simulated in the ANSYS fluent software to check the mixing pattern exhibited inside the venturi.

#### SAE BAJA'12 and SAE BAJA'13

2011-2013

- The annual competition for designing and fabricating an ATV vehicle from ground zero.
- Was part of the suspension design team within a team of 25 members.
- The team 'ENGINES & DEMONS' made into the last 16 on race day.

#### **COURSE PROJECTS**

- ROBOTICS mini project : Designing a 3 DOF robot with its workspace analysis
- CONTROL THEORY: Designing a pendulum damping cart using servo motors and feeding motion that opposes the motion of the pendulum
- RAPID PROTOTYPING: Designing and fabricating a Differential gear mechanism system using rapid prototyping
- METAL MATRIX COMPOSITES: A study and presentation on the metal matrix composites conducted during material sciences

## RELEVANT COURSEWORK

- Robotics, Mechatronics system design, under actuated robotics
- Machine design I & II, Kinematics and dynamics of machines, machining science
- Microprocessors & automatic control, embedded systems

## **TECHNICAL SKILLS**

- HARDWARE : rapid prototyping, CNC programming, Machining &tooling operations, embedded & sensor systems, all major microcontrollers
- PROGRAMMING: C/C++, python, node-js
- SOFTWARES: AUTOCAD, SOLIDWORKS, ANSYS, MATLAB

## **HONORS**

- TOP 25 UNDER 25 (INDIA) in Science & Technology by CAMPUS DIARIES (over sixteen thousand applicants)
- IIT-JEE All India Rank 3949 out of 4 Lakh participants
- Certificate of merit for scoring 100 percentile in Class X Mathematics Board Examinations
- All india rank of 32 in ARYABHATTA All India mathematics competition
- National Olympiad certification.
- National Talent Search Examination (NTSE) Scholar.
- Best student of the year (2007).
- PRASHANSA- SILVER AWARD for leakage reduction on assembly line (Endurance Technologies Private Limited, 2015)

## **EXTRA CURRICULARS**

- Prizes and awards for quizzes, dramatics and story writing during
- Table tennis secretary for university in first year
- University team at annual Inter IIT sports meet in track field and basketball.
- Industrial workshops on Design failure mode and effect analysis (DFMEA), Design of Experiments (DOE), Leadership competency training, Systems management.