

# KUNAL KOTAK

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## ACADEMIC QUALIFICATIONS

YEAR	DEGREE	INSTITUTE	PERFORMANCE
2019*	M.Tech. (Industrial & Management Engineering)	Indian Institute of Technology, Kanpur	8.0*
2015	B.Tech. (Mechanical Engineering)	Pandit Deendayal Petroleum University(PDPU), Gandhinagar	79.00%
2011	Class XII, Gujarat Board	Silver Bells School, Palanpur	85.23%
2009	Class X, Gujarat Board	P.V. Modi School, Rajkot	80.15%

## ACADEMIC PROJECTS

### Credit Card Fraud Detection in R – Data Preprocessing, Data Modelling and Comparing Model Accuracy(Ongoing).-

Sampled the highly asymmetric data in a stratified way for pre-processing. Applying 3 Machine Learning models (K-Nearest Neighbor, Random Forest and Logistic Regression) and comparing their accuracy.

### Automobile Mileage Exploratory Data Analysis in R.

Build regression models to predict the Miles Per Gallon(MPG) using 3 multivalued discrete and 5 continuous attributes. Compared Linear, Log-Linear, Log-Log Models by the values of adjusted R<sup>2</sup>.

### Vehicle Routing Problem : Analyzing drawbacks of various Heuristics

Formulated Travelling Salesmen Problem and Vehicle Routing Problem. Analyzed the limitations of Vehicle Routing Problem Heuristics.

### Design and Development of Air Powered Engine.

Lead the team of 4. The project was fully funded by ORSP, SRP(Student Research Program) Department, PDPU.

## INTERSHIPS

### Larsen & Toubro Power , Baroda.

May'14-June'14

- Designed Chemical Feed System by focusing mainly on Dosing System.
- Devised a mini project on sizing of LP Heater Drain Pump.
- Analyzed the Chemical feed system by studying requirements and availabilities.

### Home for Mentally Retarded Children, Rajkot.

June'12

- Collaborated with NGO working for betterment of specially abled children.

## POSITION OF RESPONSIBILITY

- Senior Executive , Academics and Research Cell
- Active member of Unnat Bharat Abhiyan, a Government of India Initiative
- Core member of ISHRAE Ahmedabad chapter(2014-15)
- Volunteer , Student Placement Office(SPO), IIT Kanpur (Dec 2017-Jan 2018)

## COURSEWORK AND SKILLS

<b>Relevant Courses</b>	Data Mining and Knowledge Discovery   Statistical Modeling for Business Analytics   Operations Research   Design of Production Systems   Probability & Statistics   Introduction to Computing-Java   Computer Aided Decision Systems   Operations Management
<b>Technical Skills</b>	R   Python   Numpy   Pandas   Matplotlib   scikit-learn   Java   HTML   PHP   MS Office   Solid Edge

## AWARDS AND ACHIVEMENTS

<b>Academic</b>	<ul style="list-style-type: none"><li><b>Paper Published :</b> Published a Paper Titled "Design and Development of Air Powered Reciprocating Two Stroke Engine" in "International Journal of Research and Scientific Innovation" (Volume II Issue XI)</li></ul>
<b>Extra-Curricular</b>	<ul style="list-style-type: none"><li>Certified by Auto Factory (Garage One) in 2013</li><li>A member of team that participated in workshop on "Fundamentals of Vehicle Dynamics" by American Society of Mechanical Engineering (ASME) Student Section</li><li><b>Sponsorship:</b> For research project on "Design and Development of Air Powered Engine" by ORSP (Office of Research and Sponsored Programs), PDPU worth <b>Rs. 46,000</b></li></ul>