# Dhiraj Kumar

# Sophomore at IIT Kharagpur

#### Education

Year	Degree	Institute	Percentage/CGPA
2016-2020	B.Tech in Industrial and	Indian Institute of Technology,	9.50/10
(expected)	Systems Engineering	Kharagpur	Department Rank 1
2016	Class XII, CBSE	Vidya Bharati Chinmaya Vidyalaya, Jamshedpur	94.6%
2014	Class X, CBSE	Valley View School, Jamshedpur	10/10

### **Projects**

#### The ACL Anthology Knowledge Graph

Aug 2017 - Feb 2018

Prof. Animesh Mukherjee and Prof. Pawan Goyal, CS Department, IIT Kharagpur

ACL Anthology Knowledge Graph is a project to better understand the research progress in Computational Linguistics community. The current system utilizes both textual and network information for graph construction. My role in this project was to polish the extracted raw data and create a portal for searching a paper/author/conference through various different parameters. Each author/paper/university has its own page with elegant data visualization of their work. The system also handles NL Queries. Paper submitted in NAACL conference 2018

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http://cnerg.iitkgp.ac.in/aclakg/

Tools Used - React|S, MongoDB, Recharts, Node|S

## **Khet - Mobile App for Farmers**

Jan 2018 - Ongoing

Term Project for Work System Design

Making an mobile app on semi-literate farmers of India who can sell their products just by clicking a picture of their product and adding a price per unit. The app is being developed on React Native and the classification of the different items will be done using Google's Cloud Vision API.

Tools Used - React Native, Keras, Google Cloud Vision API

### Data Analysis for a Retail chain in India

Oct 2017 - Nov 2017

Self Project

Wrote a detailed analysis report for a retail chain. Made clusters using Hierarchical Clustering for the different cities the retail chain is situated in for forming better marketing strategy. Regressed through the given data to find parameters which affect total sales. Also explained the affect of change in GSDP of a state on the sales of retail store for towns and cities.

Link to Report - http://tinyurl.com/retail-chain-analysis

Tools Used - Scikit Learn, Statsmodel, Pandas, Matplotlib, Seaborn



Languages - Python, JavaScript, C, C++, ES6, SQL
Libraries / Frameworks - Scikit Learn, Keras, Tensorflow, Pandas, D3, ReactJs, Matplotlib, NodeJS etc.
Tools - CPLEX, MATLAB, Tableau (Basics)
Additional Skills - Strong analytical, debugging and problem solving skills, REST APIs, SEO etc

#### **Relevant Courses**

#### Institute courses

Probability and Statistics, Operations Research, Linear Algebra, Genetic Algorithms, Information Systems, Design and Analysis of Algorithms, Programming and Data Structures

#### **MOOCs**

Machine Learning A-Z for Data Analysis (Udemy), Programming with Python for Data Science (EdX)

#### **Activities and Achievements**

- Open Source contributor to Mozilla's Iodide Project
- As a Core Team Member of **Kharagpur Open Source Society**, organized **Open Source Summit** and taught at JavaScript workshop in Jan'18 and organized **Git and GitHub workshop** in Oct'17. Helped in promoting Open Source culture at IIT Kharagpur.
- Co-owner of the website **TemplatesYard.com** where we build professional templates and themes for Blogger platform
- Among the Top 0.4 percentile in the Indian Institute of Technology Joint Entrance Exam Advanced-2016 (IIT JEE).