

# Deepak Gupta

ASSOCIATE DEVELOPER · COMPETITIVE DATA SCIENTIST

B410, Mahaveer Regal, Seetharampalya, Bengaluru, Karnataka, 560048, India

☎ (+91) 8521812736 | ✉ catchdeepak.nitp@gmail.com | 🏠 www.jigsawcoder.ml | 📷 deepakgupta1 | 🌐 deepakgupta94

## Experience

### SAP Labs

Bengaluru, India

ASSOCIATE DEVELOPER

August 2017 - PRESENT

- **Single Metric Forecasting.**

- Forecasting future values of performance metrics of managed systems, given past values, for early identification of any anomalous behaviour.
- Made time series models: Exponential Smoothing, ARIMA and regression model: LightGBM for forecasting.
- For regression models, made lag features, rolling time statistics features.

- **Alert Correlation.**

- Finding correlated alerts at different levels of system hierarchy to reduce number of duplicate alerts for system administrators.
- Using Market Basket Analysis concept based statistical model for Association Rules mining of correlated alerts.

### Coriolis Technologies

Pune, India

SUMMER INTERN

May 2016 - July 2016

- **Automatic Number Plate Recognition.**

- A machine learning system that gives license number from image of a car having number plate.
- Image manipulations are done on the input image to extract out the number plate region and then numbers are extracted with further processing and OCR.
- Used Python, OpenCV2, pytesseract and SVM classification.

### Indian Institute of Technology Bombay

Mumbai, India

SUMMER INTERN

May 2015 - July 2015

- **Blended MOOCs for IIT Bombay.**

- A platform for IIT Bombay to offer MOOCs to students for learning and teachers to integrate with classroom study.
- I made the Course Management module which provides features for registration for a course, viewing course details, change college details for a course and unregistering for a course.
- Used Python, Django and MySQL.

## Projects

### Mozilla Automatic Bug Triaging

TEXT CLASSIFICATION, DEEP LEARNING

Oct. 2018

- Predicted the software component to which a bug should belong to, given the past data about bugs and the components to which they were associated.
- Did multi-class text classification using pre-trained embeddings (fasttext, glove etc.) and different architectures of Deep Learning.

### Scoring Airbnb Reviews

NLP, MACHINE LEARNING

July 2018

- Score prediction in the categories of cleanliness, accuracy, check-in, communication, location, value (out of 10) and overall (out of 100) based on the text reviews left by customers on Airbnb.
- Trained LightGBM regressors over several engineered features including tfidf and word2vec features.

### Product Recommendation for Big Bazaar customers.

RECOMMENDATION ENGINE, COLLABORATIVE FILTERING.

Oct. 2017

- Recommend 20 products that Big Bazaar customers are most probable to buy in next one month, provided their shopping history.
- Explored both heuristics based rules approach and Collaborative Filtering algorithm for product recommendation.

### Customer Segmentation based on shopping patterns.

HIERARCHICAL CLUSTERING, K-MEANS

Nov. 2017

- Cluster customers based on their shopping patterns and other data given about the customers and shopping stores.
- Explored K-Means and Hierarchical Clustering algorithm to solve this problem.

### Food Image Classification.

IMAGE CLASSIFICATION, DEEP LEARNING

Dec. 2018

- Classify Japanese food images into 43 different categories, given more than 0.7 million labeled images.
- Fine tuned Imagenet pre-trained models like ResNet50, Densenet201 on the given data set.
- Ensembled all the different architectures to achieve better predictions.

## Technical Skills

---

<b>Programming</b>	Python
<b>Tools</b>	MySQL, OpenCV
<b>Major Packages</b>	Pandas, Numpy, Sklearn, XGBoost
<b>Data Science</b>	Regression, Clustering, Time Series, Image Processing

## Education

---

### National Institute of Technology Patna

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING

- CGPA: 8.8/10

Patna, Bihar

August 2013 - May 2017

## Presentation

---

### SAP Conference on Machine Learning

PRESENTER FOR SYSTEM OUTAGE PREDICTION PROJECT

- Presented as well conducted a workshop on a data science project done in my team on System Outage Prediction.

Berlin, Germany

Feb. 2018

## Honors & Awards

---

2018	<b>11th Place</b> , International Data Analysis Olympiad out of 900+ Teams.	Moscow, Russia
2018	<b>Winner</b> , DataWarriors Challenge for SAP for Zomato, Delhivery, Portea.	SAP
2018	<b>Winner</b> , PredictTheKick Hackathon, predicting final match of FIFA18.	SAP
2018	<b>22nd Place</b> , Analytics Vidhya, a data scientist contest platform, among more than 1,32,000 members.	Online
2017	<b>11th Place</b> , IndiaHacks Machine Learning out of more than 7000+ participants.	Online
2017	<b>14th Place</b> , Click Prediction Hackathon out of more than 2900+ participants.	Online
2017	<b>10th Place</b> , Recommendation Challenge out of more than 490+ participants.	Online