# Rohit Raj

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B.Tech. (IT)
Project Engineer - Machine Learning

## **PROFILE SUMMARY**

- B.Tech. (IT) with experience of 1 year in Software Development and Data Science
- Implemented optimized models using various Machine Learning algorithms to predict the outcome
- Acquainted with multiple technologies like Python, MongoDB, Java, Servlet, JSP, JDBC and Oracle DB
- Certified in MOOCs from University of Michigan, John Hopkins University & Massachusetts Institute of Technology

## **WORK EXPERIENCE**

Nov'15 - Present

Wipro Technologies, Bangalore Project Engineer – Holmes Team

## Responsibilities:

- Working on knowledge Bot that creates knowledge graph using spacy, genism and other NLP packages using Machine learning
- Trained a ML model using SVM that classifies different element inside images with more than 75% accuracy on very limited data
- Implemented AdaptiveUI Bot Agent using Python and MongoDB for Recording the test cases and process it for playback
- Implemented Tracer and git-diff features for Regression Testing Bot using Java technology that reduced time by 30% and cost by 40%

Sep'14 - Nov'14

Astin Technology, Noida Intern – Software Development

## Responsibilities:

- Assisted in writing code for Model View Controller (MVC) web application that automated the process of monitoring personnel management
- Worked on CRUD Classes for tracking employee progress along with their assigned tasks and performed CRUD operations that alter the backend database
- Streamlined the User Interface (UI) of an application that reads the contents of the database and submits form & displays in tabular form the status of the employees related details, previous work experience, achievements, status of current assigned tasks
- Understood working of technologies like Database (MySQL), Java, Servlet, JSP, JDBC and Eclipse IDE

## **PROJECTS**

**Title** Create customer segments

Period Nov'16-Feb'17

**Description** Reviewed unstructured data to understand the patterns and natural categories that the data fits into and

implemented model using PCA and KMeans.

#### Role:

- Made predictions about the natural categories of multiple types in a dataset, then checked Against the result of the unsupervised analysis
- Implemented feature scaling and obtained 0.44 silhouette score to get efficient number of clusters

**Title** Student Intervention System

Period Oct'16-Nov'16

**Description** Analysed the student intervention dataset to model the factors that predict how likely a student is to pass

their high school final exam and then by using that factors implemented the tuned model to predict

success and failure early enough to stage effective interventions

### Role:

• Built a Student Intervention System to suggest ways to increase school graduation Rate From 67% to 95% (Python)

- Analysed 31 parameters to build a model to identify students who need help before they Drop out of school
- Utilized F1 score as the performance metric to compare different techniques- SVM(F1=0.78) Decision tree (F1=0.67) and KNN (F1=0.73)
- Improved F1 score of the best model by 2% by model tuning(Grid-search)

**Title** Predicting Boston Housing Prices

Period July'16-Sept'16

**Description**Builded an optimal model based on statistical analysis on various features of Boston housing dataset by

using Machine Learning algorithm to predict selling price of homes in Boston, Massachusetts (Python).

#### Role:

 Utilized Boston Housing dataset to build the optimal model to estimate the best selling price of Boston homes

• Exploratory data analysis to visualize the effect of different features on house price

## **ACADEMIC DETAILS**

2015 B.Tech. (IT) from Muzaffarpur Institute of Technology, Bihar with 7.69/10
2009 12<sup>th</sup> from PCV Mahavidyalaya, BSE Board, Chhapra, Bihar with 66%
2007 10<sup>th</sup> from Dr. RPH School, BSE Board, Hathua, Bihar with 62%

## TECHNICAL SKILLS

Languages Python, Java, R

Skills Machine Learning, Data Structure & Algorithms

Technologies Scikit-learn, JDBC, Servlet/JSP
 IDE Eclipse, Pycharm, NetBeans

## CERTIFICATIONS

Jun'16 Introduction to Python for Data Science by edX

May'16 Intro to Machine Learning by Udacity

Dec'14 **Programming for Everyone - Python** by Coursera with 100% score

## PERSONAL DETAILS

Date of Birth 15<sup>th</sup> December, 1992

Current Address 96, 6th Main, BTM 1st Stage, Bangalore, India

Permanent Address Beside of PO, Mirganj, Gopalganj District- 841438, Bihar, India

Languages Known English, Hindi and Bhojpuri