VIVEK MOHAN SINGH

+91-70894 70331| vivekmanu1234@gmail.com| LinkedIn| GitHub| Bengaluru, IN
Sr. Analytics Consultant & Certified Data Science Professional

PROFESSIONAL SUMMARY:

- **I am a data science enthusiast, worked as a lease administration analyst at NTT DATA IPS for client JLL Inc., having proficient experience in EDA, Predictive Modelling, Hypothesis testing, Big Data (HDFS, Spark, Hive) and related visualization using BI tool Tableau, for analytics driven Portfolio management.**

EDUCATION:

- **PG Diploma in Data Analytics** I IIIT-Bangalore & UpGrad|**3.4/4.0**   **Mar '17 – Mar'18**
  A comprehensive program taught by Industry experts and IIITB faculty; 7 case studies & projects; 400+ hours of Academic learning including EDA, Predictive Modelling, Big Data Analytics and Domain specific Capstone Project.
  Consistently scored **>80$^{th.}$ percentile** on all projects for data management, statistics and predictive analytics courses.

- **B. Tech. - Computer Science & Engineering** I Jaypee University of Engineering & Technology   **Guna, IN | Aug '13 – May'17**

KEY DATA SCIENCE PROJECTS:

- **Uber Supply-Demand Gap:** Analyzed the problem of cab availability to and from airport i.e. Problem of cancellation of cars by the driver or non-availability of cars. Analysis was done on 6lacs+ customers' data provided by Uber by cleaning the Raw data in R, segmenting & Bucketing into time specific metrics and separately visualizing Univariate and Bivariate variables board and into meaningful plots, story correlation matrix in Tableau, for a deeper understanding of the cause behind the Gap.

- **Risk Analysis of loans:** Freelanced this project for a consumer finance company, analyzed two major Risks for the bank:
  i) If the applicant is **likely to repay the loan**, then not approving the loan results in a **loss of business** to the company
  ii) If the applicant is **not likely to repay the loan,** i.e. he/she is likely to default, then approving the loan may lead to **Financial loss** for the company.
  Performed Exploratory Data Analysis to understand the **driving factors (or driver variables)** behind loan default, i.e. the variables which are strong indicators of default. The company utilized this knowledge for its portfolio and risk assessment.

- **Linear Regression for Geely Auto:** Undertook this project for an automobile company GEELY AUTO who wished to know:
  i) Which variables were significant in predicting the price of a car
  ii) How well those variables could describe the price of the car.
  The data was gathered from various market survey of different types of cars in the American Market.
  Used Linear Regression to model the price of cars with the available independent variables. It was used by the management to understand how exactly the prices vary with the independent variables.

  The model served a good way for the management to understand the pricing dynamics of a new market.

- **Multiple Logistic Regression Analysis:** Undertook this project for an HR of a company to predict the cause behind the attrition of employees. The company has maintained a database containing employee/manager survey information,
  The general data about the employee and in-time and out-time for 261 days for about 4400 employees. Analysis was done by segmenting the metadata into buckets of categorical independent variables as:
  1. Employee Survey
  2. Manager Survey
  3. General Data
  4. Working hour information using In-Data & Out-Data
  After data preparation and EDA dummies were created for categorical data and the final data was scaled for model building. A total of 21 logistic models were built, predicted and cross evaluated on test data. The predicted data was 89.0% accurate with train data and gave 11 significant driver variables for the cause behind attrition of employees.

- **SVM Analysis for image recognition of letters:** The objective was to identify each of a large number of black-and-white rectangular pixel displays as one of the 0-9 letters in the Numeric System.
  The goal is to develop a model that can correctly identify the digit (between 0-9) written in an image, taken from (MNIST data portal containing pixel intensities of each letter in the metadata). After data Preparation and EDA, Modelling was done using linear KSVM kernel and RBF kernel, followed by cross validation and hyper parameter tuning.
  The final model was 95% accurate in prediction letters from the test data.

- **Time-Series Analysis forecast for Sales and Demand:** Performed Time Series analysis for "**Global Mart**", which is an Online store super giant having worldwide operations. The store caters 7 different market segments in 3 major categories, so the data was segmented into 21(7*3) unique market segment buckets and out of these major 2 were taken for analysis using coefficient of covariance among top 21 segments. The data was then mapped to Time series format in R, the model was built and forecasted using classical decomposition and auto-ARIMA to predict sales and demand for next 6 months. The forecast was then evaluated with MAPE. The most profitable segments for sales and demand were **Europe-Consumer** and **AsiaPacific-Consumer**.

- **Annual Report HERO MOTO CORP 2015-16(website):** Designed and developed the annual report website for HERO MOTO CORP 2015-16. The Website is broadly built to succinctly visualize statistics and non-statistic part of the report as a digital media for customers and shareholders. It's powered by various J-Query plugins, uses bootstrap as a frontend framework & PHP-PDO for handling database.

    Link: http://www.heromotocorp.com/en-in/digital-annual-report-2015-16/

WORK EXPERIENCE

Sr. Associate Consultant (Analytics), *NTT DATA Information Processing Services,*   Bengaluru, IN | **Aug 2017- Apr 2019**
- Managing clients as a Lease Administration Analyst at **NTT DATA IPS**.
- Providing full **administrative** support for Marketing Officer for **Leasing and Portfolio** administration.
- Analyzing and forecasting Interest rates using predictive modelling and marketing mix on historical data.
- Preparing and distributing critical date reports; maintains tickler system for tracking important dates and tasks.
- Conducting financial analysis/accounting as appropriate, including AR/AP, rent rolls, and budgets in accordance with required accounting principles (GAAP, Tax, Cash, etc.)
- Abstracting and interpreting commercial lease documents.
- Reporting by deploying Tableau preparing storyboards, and related visualization.

UI-UX Developer, *AICL Communications*, Mumbai   **June 2017 - Aug 2017**
- Designed and Developed Web UI, Content Management System, mocks, wireframes, and flat designs for digitalization of annual reports of various top tier companies such as Hero, Reliance Industries Ltd, JSW Steel etc.
- Developed multi stack websites from static HTML/CSS to Plugin driven PHP content management systems.
- Designed and implemented PHP and D3.js driven data plots both static and dynamic for report's tables and plots.

Web Developer, *Centre for Development of Telematics (C-DOT),* Delhi   **June 2016 - Sept 2016**
- Worked as a summer intern on web development and telematics enhancement projects using modern web workflow.
- Developed a dynamic website for a government NGO Kalantar Art Trust using AngularJS MVC and implemented an Instamojo payment gateway for Donation.
- Gained insights on network nodes using ASN.1 BER Encoding Rules.

KEY SKILLS

- **Machine Learning** Modelling using R, Python
- **Statistical Programming**: R (Advanced), Python (Intermediate)
- **Visualization tools**: Tableau, R, D3.js
- **Frontend UI**: JQuery, Jquery UI, CSS3, Flexbox
- **Databases:** MySQL, PHP-PDO, MySQLi
- **Cloud:** IBM Watson (NodeRed), AWS(D3, VPC, RDS, MapReduce)
- **Programming:** C#, R, Python
- **Distributed Computing:** HDFC (Hadoop), Spark, Hive
- **Statistics & EDA**: Using R and MS-Excel, Google Analytics
- **Web Technologies**: HTML5/CSS, AngularJS, PHP (laravel)
- **Non-Technical skills:** EDA, Data Analysis & Forecasting, Leadership, Project Management

ACCOLADES

- IBM <Geektech> hackathon runner–up built a recommendation system using IBM Watson Developer Cloud. Completed 43 Certification courses on Udemy on multiple stacks for Front-end/Back-end.
- Mozilla Firefox team Member. Student ambassador in college to organize and conduct Mozilla workshop on development and Technology.
- CSI (Computer Society of India) lifetime Member, undertake collaborate and organize industry specific webinars/seminars for professionals.
- Part time Freelancer, I undertake freelancing projects for 3[rd.] party clients for static/dynamic website development.