

# Vishnu Prakash Singh

Data Scientist, Data Science & Analytics Group,

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<https://linkedin.com/in/vishnu1183>

<https://github.com/Vishnu1183>

<https://vishnu1183.github.io/>


## Total Experience: 2.5 Years, Data Scientist Experience: 2.5 Years

- Skilled in monetizing data through use of Data analytics, Advanced Analytics, ML/AI.
- Hands-on experience in machine learning, deep learning, natural language processing, predictive modelling, credit underwriting and automated reporting in Python, SQL & R.
- A mix of a statistics/ engineering graduate and a self-taught programmer dedicated to solve business problems using data, machine learning and AI



## Professional Experience:

### Data Scientist – Manager 1 | Data Science and Analytics Group | ICICI Bank, Hyderabad | Jan'17 – Present

Primary Role	▪ <b>Data Scientist, Advanced Analytics Team</b> , implemented various Data Science, Machine Learning and Deep Learning projects in ICICI with customer & revenue centric approach
Responsibilities	▪ Design, Develop, validate, Implement and maintain various Machine learning models ▪ Design and Implement data analytics driven strategies for ICICI as well as Non ICICI Bank Customers by analysing raw data from internal and external sources for cross/up selling. ▪ Providing Data Insights to Senior Management for critical decisions and other business problems by applying various data mining and statistical techniques
 Projects	▪ <b>UPI Scorecard Model:</b> Developed scorecard for Forecasting Credit Default Probability on the basis of UPI transactions of a customer and its network to facilitate Credit Decisioning using Random Forest Model ▪ <b>Deliverables Management:</b> ML framework to identify short/incomplete address and launch campaign for address correction to reduce the delivery failure rate using gradient Boosting <b>Scaled up the model to 30 mn customers, reducing delivery failure rate from 5% to 1.5% for the campaigned customers.</b> ▪ <b>Call Center Call Forecasting Model</b> – Developed Call center call forecasting model - Developed a random forest model and <b>reduced the error rate of an existing ARIMA implementation by 56%</b> for call center call forecasts at 15 minute intervals. ▪ <b>Resume shortlisting:</b> Developed a resume shortlisting model for the HR Team for multiple sales roles within the bank ▪ <b>Transaction Scorecard:</b> Developed Credit Scorecard on basis of liability transactions using Traditional Scorecard approach to check creditworthiness of an individual using Logistic Regression and other statistical techniques. <b>The Scorecard is part of all Pre-approved credit offers shown through iMobile.</b> ▪ <b>Transaction mining for cross sell lead generation</b> - automated use case for daily transaction cleaning, parallelized approximate string distance calculation in R using foreach, lead generation, tracking and automated reporting. ▪ <b>Cash limit optimization:</b> Created a simulation module in R to best estimate the cash limit for different cash pickup locations across India to minimize cost. ▪ <b>Anomalous Transaction Detection:</b> Developed an Isolation Forest Model & Local Outlier Factor based model to identify the anomalous transactions happening digitally. ▪ <b>Online Cross Sell Base Generation &amp; Expansion:</b> FPR for the cross-sell base generation & expansion, which requires creating norms & strategy, backed by data analysis and implementing it on customer data. ▪ <b>Operational Loss Prediction:</b> Estimated parameters for Log-Normal & Weibull distribution to estimate Operational Loss. ▪ <b>TW Application Scorecard:</b> To facilitate lending of Two wheelers, developed a scorecard Model to score applications taking into account the risk profile of the potential customer using ensemble of logistic regression and random forest.
Tools Platforms Expertise	▪ <b>Languages:</b> Python, SQL, R, linux shell <b>Tools:</b> Excel, Tableau, Git, SAS ▪ Data Science: Traditional and Machine Learning models like Linear Regression, Logistics Regression, Decision Trees, Random Forest, Gradient Boosting, Clustering, Dimensionality Reduction Techniques - PCA, Time Series - ARIMA, Neural-Networks, web-scraping

Data Science Intern		RBL Bank Ltd, Mumbai	Jan'18 – Jun'18
Internship Projects	<b>Trend Analysis &amp; Anomalous Outlet Detection:</b> <ul style="list-style-type: none"> <li>Visualized the monthly, weekly &amp; daily trend in value and volume of transactions made by Aadhaar Enabled Payment System (AePS), Domestic Money Transfer (DMT) &amp; MSwipe Point of Sale (POS).</li> <li>Plotted the locations of these outlets in map of India to help management take decision for location to setup new outlets using tableau.</li> <li>Developed RFM model to segment outlets to provide better treatment to good clusters.</li> <li>To identify the outlets doing anomalous or fraud transactions.</li> </ul>		

Business Analytics Intern		ITC PSPD Ltd, Tribeni, WB	May'17 – Jul'17
Intern-ship Projects	<b>Reducing Surface Defects in Paper during manufacturing in PM3: A Six Sigma Project</b> <ul style="list-style-type: none"> <li>Aimed to find different surface defects on paper during manufacturing and their root cause.</li> <li>Identified controllable Process parameters responsible for surface defects and optimized these parameters to reduce the rejects during Quality checks.</li> <li>Provided correct guidelines to manufacturing department to set identified parameters within range.</li> </ul>		

Certifications and Skillset	
<a href="#">DataCamp</a> 108courses	<ul style="list-style-type: none"> <li>Successfully completed <a href="#">108 courses</a>, 9 skill tracks, 6 career tracks in Python / R in 5 months from Oct18 – Dec18 &amp; Nov19– Dec19.</li> <li>DataCamp : Completed Track 'Data Scientist with Python' containing 26 courses.</li> <li>DataCamp : Completed Track 'Data Scientist with Python' containing 19 courses.</li> </ul>
<a href="#">Coursera</a> 06 courses	<ul style="list-style-type: none"> <li>Completed Machine Learning, Practical Machine Learning, Applied Machine Learning in Python and Applied Plotting, Charting &amp; Data Representation in Python &amp; 2 others.</li> <li>Coursera : Deep learning Specialization - Neural Networks and Deep Learning, Improving Deep Neural Networks: Hyper parameter tuning, Regularization and Optimization, Structuring Machine Learning Projects</li> </ul>
<a href="#">Hackerank</a>	<ul style="list-style-type: none"> <li>5 Star Badge in Python</li> </ul>

ML Competitions & Self-Projects/ Blog
<ul style="list-style-type: none"> <li>Got rank 20 out of 1350 registrations (~1.5%) in <a href="#">HackLive 3: Guided Hackathon – NLP</a> at Analytics Vidhya</li> <li>Got rank 112 out of 5750 registrations (~2%) in <a href="#">JanataHack: HR Analytics</a> at Analytics Vidhya.</li> <li>Extracted and visualized all the courses done by me in Datacamp, Web Scraping was done using beautifulsoup to extract course name, language, description and Link in structured form. Also, Tracks completed and points earned in each category were mined and visualized.</li> <li>Wrote an article in <a href="#">Kaggle</a> / <a href="#">my Blog</a> on 'Reporting using markdown in jupyter notebook'.</li> </ul>

Academic Record			
M.Tech in QROR, (ML,BA, Stats as main subs)	72%	Indian Statistical Institute, Kolkata, WB	2018
B.Tech in Electrical & Electronics Engineering	8.92	Vellore Institute of Technology, Vellore,TN	2014
HSC, CBSE	84%	SJS Public School, Raebareli, UP	2009
SSC, CBSE	93%	SJS Public School, Raebareli, UP	2007

Interests & Extracurricular Activities
<ul style="list-style-type: none"> <li>Spending time at Coding Problem Platforms</li> <li>Participating in ML/AI competitions.</li> <li>Cooking, Watching Movies /TV Series.</li> <li>Member of Entrepreneurship cell at VIT, Vellore.</li> <li>Member of Health Club at VIT, Vellore.</li> </ul>