

Total Experience 12+ Years

- Full stack data scientist and Team Lead with experience of developing & deploying Machine Learning, Deep Learning, Reinforcement Learning and Large language Models (LLMs)
- Converting Business Problems into data-driven ML projects
- Finance, NBFC (Non - Banking Financial Company), Pharmaceutical, IT and Manufacturing Domains Experience
- Dale Carnegie certified trainer – training industry individuals and students for various GenAI, ML and Data Science courses
- **GenAI Project Deployment Link:**
 - Live Chatbot on: <https://datalysis-website.vercel.app> (Deployed chatbot for datalysis – a training institute)
 - RAG based auto configurable chatbot – can scrape any website and document
 - Requires less than 6hrs to deploy for any website
 - Easy deployment using NPM package – built on react base, deployed on EC2
- Programming Skills / Languages /Tools: Python, PySpark, R, Excel (Advanced + VBA), SQL, Databricks
- 5+ years of team lead experience
- GitHub Profile (Only a handful of projects mentioned): <https://github.com/kunjesh90>
- ML Competitions (Completed 50+ Competitions on Analytics Vidhya, Techgig, Hacker Rank, Kaggle, Driven Data etc.). Highlights below:
 - Hateful Meme Prediction (A competition by Facebook on driven data – Ranked in top 10%) [Text+Image Classification]
 - Secured All India Rank 7 in the Data Science Competition (A PD modelling competition) held by GE Analytics on techgig
 - Twitter Sentiment Analysis Case on Analytics Vidhya with Secured Rank in top 5%
 - Completed Mechanism of Action competition on Kaggle with Mean Log Loss 0.01798 while the Rank 1 had 0.01599
 - Fashion MNIST competition on analytics Vidhya
 - AmExpert 2019 – Machine Learning Hackathon: Secured Rank in top 30%
 - HR Analytics Case on Analytics Vidhya - Secured Rank in top 10%

Designation: Head of Data Science & Engineering**July'23 – till date****Designation: Deputy National Lead (Data Science & Engineering)****Sep'21 – June'23 (22 Months)****Designation: Senior Lead (Data Science & Engineering)****Mar'20 – Aug'21 (18 Months)**

- Leading a team of 50+ Data Scientists, Data Engineers, and BI Analysts to deliver various performance metrics for different products of Bajaj in the digital commerce space
- Working on **Click Stream - User Behavior Data Analysis** of Bajaj Finserv super app and Bajaj Mobikwik app
- Creating solutions to pitch the right product to the right customers to minimize the risk
- Dealing with business stakeholders to understand their dashboarding requirements for various KPIs
- Created **HEART Metrics** (Happiness, Engagement, Adoption, **Retention** & Task Success) to gauge the performance of Bajaj Finserv super app
- Working on strategies to improve the **MAU, DAU, customer retention** on the app

Project 1: RAG based chatbot for customer queries related to Fixed Deposits of Bajaj Finance

- Created RAG-based chatbot answering customer queries related to fixed deposits of Bajaj Finance
- Vector databases used: FAISS, ChromaDB
- Base LLM: **LLaMA70B** and **chatgpt** APIs using **Langchain**
- Deployed backend on AWS EC2 as well as Render

Project 2: LLM for vernacular translation

- Used **M2M100**, and **MarianMT** models for vernacular translation tasks of FAQs and T&Cs for Bajaj Finserv app
- Achieved **BLEU score of > 0.8** for all the translation tasks, used mean win rates to select models for different sections

Project 3: Bajaj Finserv app & Web Personalization

- Identify opportunities on the Bajaj Finserv app for personalization
- Built and productionized ML models which have resulted in on asset click rate improvement by 30% to 90% for the personalized sections on the app – icons, banners, nudges, notifications, etc.
- Achieved **INR 7000 Mn+** of incremental revenue from personalizing various properties on app and web in calendar year 2024
- Recommended data driven-app design to optimize user journey on the app

Project 4: A/B testing

- Standardized A/B testing frame to drive the data driven decision making which is statistically significant
- End-to-end platform creation from test case design to reporting for A/B test
- The output of the test is used to scale up on production build / performance marketing activities

Project 5: Recommendations for Personal Loan & Credit Card

- Understand customer-level data (demographic, bureau, in app behavior) and Recommend the Personal Loan (PL) and Credit Card (CC) offers accordingly
- Developed decision tree algorithm to check the customer affinity for PL & CC products and built the recommendation model on the significant variables
- **Metric Improved:** Click Through Rate (CTR) improved to 4-4.5% as compared to 1% for the PL and CC product campaigns

Project 6: Payments Transactions

- Built recommendation models to nudge the customer for various BBPS, UPI, PPI transactions on the app
- Scaled up the BBPS transactions from 8K/month to 2MM/month

- Helped in achieving 3MM+ UPI handles

Project 7: Data Architecture Design for Events on Clevertap to store the Super app Data

- Created a framework to effectively identify events and event properties of the super app sections
- Stored the data effectively within the constraint of only 512 events with 256 event properties

Other Projects : Face match (Image processing using AI) , Playstore Ratings and Reviews Classification (NLP) and Profile Matching, Geographic location mapping for skip tracing, Offer pool enhancement and risk score card development using SDK data, Data Mart & Feature Mart Design, Fine-tuned LLM (LLaMA 2) & FLAN-T5 using PEFT mechanism (LoRA) for call center chat bot – prompt engineering, Worked on prompt-to-prompt diffusion model and stable diffusion model for image processing tasks

Rewards & Recognitions

- Received Super-Heroes one of the highest ranked awards in Bajaj Finance
- Received special award from Chief Business Officer for the excellent performance
- Received Data Science Star contributor award for streamlining the recruitment process of Data Scientists

PROFESSIONAL EXPERIENCE

Merck & Co.'s Global Center for Analytics & Forecasting - Aspect Ratio, Pune India

September 2016 – February 2020 (42 Months)

Designation: Team Lead (Data Science & Analytics)

(April '18- Feb'20) (23 Months)

Designation: Senior Analyst

(September '16 – March'18) (19 Months)

- Led a team of 26 analysts for various Data Science and Data Analytics Projects of Merck (One of the world's **Largest Pharmaceutical Company**).
- Led Data Science team which builds forecasting models for key immuno-oncology (anti **PD-1**) product and **vaccines** of Merck in the pipeline.
- Worked on predictive analytics that involves an end to end cycle to create the forecast.
- Developed forecasting models for demand and revenue forecasting, covering statistical trending, event modeling and reporting. The models are built in Excel using python backend with exhaustive VBA and advanced excel formulas
- Used data science techniques for various statistical analysis (ex., Hypothesis testing, Regression analysis, Cluster analysis, CART analysis, Random forest, Deep Neural Networks, CNN, RNN, text analytics, Gradient Boosting, Cross Validation techniques etc.)
- Used **python** (numpy, scikitlearn, matplotlib, pandas, tensorflow) for various statistical analysis and preparing algorithms to solve specific problems related to image processing and logistic regression.
- Worked on @Risk professionals software for creating **Monte Carlo Simulations**.
- Developed various customized **excel** and **spotfire** (Data visualization tool) reports as per the requirements.
- Created monthly demand forecasts and quarterly revenue forecasts to plan for marketing interventions.

Achievements

- Received the excellent performer's award thrice from Merck for leading and developing the forecasting models.
- Received one-star award for optimizing the prediction model and reducing the cycle time.
- Data Camp and EDx Certified: Python for Data Science, R for Data Science, pyspark,SQL for data science

Projects

Forecasting Model Development:

- Led a team of 19+ individuals to design and develop the calculations heavy oncology forecast models on web with calculation backend in python, assumptions input in excel as well as on web and the reporting on web as well as in excel.
- Led the team to create a central SQL database management for storing the forecast of every cycle and create the region wide reports directly from the database on Spotfire.
- Led the team to develop desktop based model applications with frontend in Electron JS,R-Shiny and a backend in Python and R.

Text Analytics:

- Designed a Shiny Web app in R for text analytics.
- The app was able to create summaries of large Decision Research reports using natural language processing in **R**.
- The report may vary up to 1000+ pages which can be made abridged to 1 page using text analytics algorithm developed independently
- Sentiment analysis about various drugs of Merck.

Market Share & Revenue Prediction:

- Used various data science techniques (Regression analysis, Cluster analysis, CART analysis, SVM, Time Series Analysis, Neural Networks etc.) to predict the market shares & Revenues of various Merck products (especially oncology & vaccine) in different geographies through **machine learning algorithms**.

Link Clinical Trials to Revenue:

- Merck has 500+ **Clinical Trials** going on for its key immuno-oncology product in mono + combination therapies.
- Designed a framework to accurately forecast the revenue for next 5 years (for budgeting/resource allocation purpose) by keeping the probable outcomes of the clinical trials

Image Processing:

- Predict the tumor at initial stage through the image processing, which will make the physical observations of the MRI redundant and the tumor prediction will be more precise and will be detected at the initial stage through the ML algorithms. The algorithm is designed on tensorflow (keras) with deep learning techniques (CNN+ Deep Neural Network).

Freelance Data Science Trainer

- Working as Freelance Data Science Course teacher at a couple of data science training institutes (upGrad, IMS Proschool) and colleges of Pune.
- Awarded Best Mentor by upGrad for the Oct -Dec '21 quarter

- Teaching Statistics & Analytics concepts (ex., Hypothesis testing, Regression analysis, Cluster analysis, CART analysis Naive Bayesian, Time Series Analysis, Deep Learning, tensorflow, keras etc.) and their application using **Python** and **R** programming.
- Teaching how to develop machine learning algorithms
- Chegg Subject Matter Expert for Statistics

PROFESSIONAL EXPERIENCE

Cognizant Technologies and Solutions, India. (Pune)

May 2015 – August 2016 (16 Months)

Designation: Business Analyst & Data Analytics

Actively supported all the opportunities in the North America, Asia Pacific, Middle East, Europe and India. Supported the pre-sales functions of the **Communications & Technology (ComTech)** and **Government Vertical** (SBUs namely Online, Hi-Tech, ISV and RoW). Interacting with Client Partners, Account Mangers and other Horizontal Point of Contacts across all the geographies.

Roles and Responsibilities

Marketing Analytics: Applying **statistical techniques** (namely Regression, Logistic Regression, CART analysis etc.) for targeting right customers and cross selling.

- Worked with the **Big Data Analytics** team to improve the prediction efficiency of the algorithms
- Running the **story point estimation sessions** for the **agile** projects to create **sprint & release planning**.
- Responding the **RFP (Request for Proposal)**, **RFI (Request for Information)**, **RFQ (Request for Quotation)** etc. as a **bid owner**.
- **Understand the proposal requirements, preparing the bid plan and Solution review presentations.**
- Understanding various **financial pricing models** and provide the most competitive budgetary quote to the client to ensure a winning bid.
- Preparing internal **account review research reports** of the existing clients by understanding their existing landscape and targeting their pain points for account mining.
- Preparing the **Capability & Defense Presentations** for the clients for various connects.
- Cognizant Academy Certified expert in the **Agile Story Point Estimation**

SUMMER INTERNSHIP

Toshniwal Equity Services Pvt Ltd, Mumbai, India

May 2014-July 2014 (2 Months)

Roles and Responsibilities:

- Developed an **algorithm** using **META Stock Software** for the **technical analysis** of the stocks for short term buy-sell signals and achieved an overall **accuracy** of **more than 60%** in daily stocks prediction.
- **Fundamental analysis of equities** and their long-term prediction.
- **Financial statements analysis** of the companies to understand the **financial ratios, cash flows, fund flows**
- Prepared industry **reports** and **company reports for investors**.
- Understanding **derivatives & valuation of options** by **Black-Scholes Model** and **trading in derivatives** using various **strategies**.

PROFESSIONAL EXPERIENCE

Jubilant Life Sciences Limited at Bharuch, India.

July 2011-June 2013 (24 Months)

Designation: Senior Engineer

Roles and Responsibilities:

- Real time **Electrical Power Trading** was handed based upon the live electricity market price and demand
- Worked in the **Green Field Project** where **project planning, installation, commissioning** and **operations & Maintenance** of the electrical equipment were being handled
- **Transmission and distribution of the electricity** within the Captive Power Plant was being handled
- Handled various electrical **liaising issues** and approvals related to SEZ (Special Economic Zone)

Software Skills

MS Excel: Advance Excel, Macros, VBA Coding and form controls

R, Python, Pyspark: Can handle large data sets in R & Python for statistical analysis (ex., Regression analysis, Cluster analysis, CART analysis, Deep Learning etc.), FastAPI

Deployment: Amazon EC2, render, GCP (Google Cloud Platform), heroku, vercel, docker

Azure Data Bricks: Processing big data using pyspark with effective storing in HIVE

SQL: Elementary knowledge

MS Power Point: Prepare corporate presentations for clients, Create fancy templates

Programming Languages: html, css, js, react, C, C++

ACADEMICS

Degree	Institute / University / Board	Year	%/CGPA
PhD (Artificial Intelligence)	Indian Institute of Technology, Jodhpur (School of AI)	2023-2027	8.00 *Pursuing
MBA (Finance & Operations)	Department of Management Studies, IIT Roorkee	2013-15	8.46
CAT	Indian Institute of Management (IIM)	2012	98.99 %tile
B.Tech. (Electrical Engineer)	Institute of Technology, Nirma University, Ahmedabad	2007-2011	8.09
Class XII	Sett R.J.J. High School, Navsari, Gujarat Board	2006-2007	91.33%
Class X	Sett R.J.J. High School, Navsari, Gujarat Board	2004-2005	92.14%

ACADEMIC ACHIEVEMENTS

- Got the **1st prize** in **"CORPOSTRAT"** a **Data Analytics and Financial Valuation case study** competition organized in the annual tech fest Cognizance'14 at IIT Roorkee in 2014.
- Secured **All India Rank 5** in **"Wealth Management"** examination conducted by **FLIP** (Finitatives Learning India Pvt. Ltd) 2013.
- Underwent training on **Private Equity, Firm and Equity Valuations, Mergers & Acquisitions, Structured Finance** and **Issue management** by **FLIP**.

- FLIP certified **Treasury and Capital Markets analyst**.

POSITIONS OR RESPONSIBILITIES

- Worked as the **President** of “**Vittarth the finance club of DoMS IIT Roorkee**”: actively organized **events & knowledge sessions**
- **Founder** of a club named “**PlanB**” at the IIT Roorkee level for sharing the business **knowledge through events, class sessions, magazines, guest lectures, seminars** etc. for MBA and B.Tech students.
- **Started a monthly business magazine** with the coordination of Vittarth and PlanB members.
- Led a financial event named “**CORPORATA**” in the **annual cultural festival (Thomso-2013)** of IIT Roorkee.

EXTRA CURRICULAR ACHIEVEMENTS

- **Chess champion** of the **DoMS IIT Roorkee** in the annual sports day **2014-15**.
- **Chess Champion** of the **Nirma University** in the annual sports day **2010-11**.
- **1st Runner up** in the Chess Competition held at **Cognizant Technologies and Solutions** at Chennai in 2015.
- **1st Rank** in the District level Quiz competition “**GUJCOST**” in **2006**.