

# Pratik Mohite

Python-Data Scientist, Mindtree solution - <https://www.mindtree.com/> - Pune

## Objective

To find a Position in a cutting-edge Organization that will utilize either or all of my **Python /Data science /Machine Learning /Django REST API Web Development**. Experience and skills. To employ myself in a progressive organization that provides scope to update my practical knowledge and skills in accordance with the latest trends and be part of the team that dynamically works towards growth of the organization. To achieve a challenging position in Software Testing in a result-oriented company, where acquired skills and education will be utilized towards continuous growth and advancement.



## Experience

Clients: Edpnet, Belgium | Novalnet, Germany

Strong zone: Python/Django -Backend Development / Machine Learning / Data Science

Current work experience with client Novalne, Germany as a **Python-Data Scientist** for **Payment Intelligence**.

## CORE TECHNOLOGY SPECIALIZATION:

**Python | Django REST API | Data Science | Machine Learning | PySpark | Data warehouse /ETL | Business Intelligence | SQL | Unix | MongoDB |**

## VERTICAL /DOMAIN/SYSTEM SPECIALIZATION

Telecom OSS - Provisioning & Activation | Payment Gateway | Supply chain Analytics

## Tools and Associated Technologies Used:

- ❖ Unstructured Database Used – Mongo DB
- ❖ UI Application Programming Language - HTML, CSS, JavaScript, and Bootstrap.
- ❖ Web Scraping Library : Beautiful Soup 4
- ❖ Web Framework involvement : Django REST
- ❖ BI Tool used - Tableau
- ❖ Parsing XML - xml Schema
- ❖ Important Core Package worked with Django Rest Framework : Django rest framework |Django-cors-headers |Django-allauth | Django-import-export |Django-filter |Sentry-sdk | Django Storages | Django-extensions
- ❖ Core Data science Libraries Used : Matplotlib | Numpy | Pandas | Scikit Learn | Tensorflow |Seaborn

Process worked with: DevOps + Agile + V- Model

Familiar with Software Programming Language

## Contact

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## Education

- B.E (mechanical)
- University : Rajiv Gandhi Proudyogiki Vishwavidyalaya University Bhopal

## Awards

- ❖ Received Rising Star award from MindTree for good performances.
- ❖ Received appreciation for Payment Intelligence successful delivery from Client **Novalnet,Germany**.

## Personal Details

- Father Name: Ajay Mohite
- Mother's Name: Apurva Mohite
- Permanent Address: Flat no. A902 Mayuri sunrise society, wagholi, pune,412207
- DOB: 09/07/1991
- Marital Status : Married
- Gender: Male
- Language: Hindi, English, Marathi
- Passport Availability: yes

## PROFESSIONAL WORK SUMMARY

- ❖ Highly experienced Data Scientist with **3+ years'** experience in **Data Extraction, Data Modelling, Data Wrangling, Statistical Modeling, Data Mining, Machine Learning and Data Visualization.**
- ❖ Expertise in transforming business resources and requirements into manageable **data formats and analytical models, designing** algorithms, building models, developing data mining and reporting solutions that scale across a massive volume of structured and unstructured data.
- ❖ Proficient in managing entire data science project life cycle and actively involved in all the phases of project life cycle including **data acquisition, data cleaning, data engineering, features scaling, features engineering, statistical modeling**, testing and validation and data visualization.
- ❖ Proficient in Machine Learning algorithm and **Predictive Modeling including Regression Models, Decision Tree, Random Forests, Sentiment Analysis, Naïve Bayes Classifier, SVM, Ensemble Models.**
- ❖ Collaborated with data engineers and operation team to implement ETL process, wrote and optimized SQL queries to perform data extraction to fit the analytical requirements.
- ❖ Explored and analyzed the customer specific features by using Spark SQL.
- ❖ Performed univariate and multivariate analysis on the data to identify any underlying pattern in the data and associations between the variables.
- ❖ Performed data imputation using Scikit-learn package in Python.
- ❖ Worked on data cleaning and ensured data quality, consistency, integrity using Pandas, Numpy.
- ❖ Used SSIS to create ETL packages to Validate, **Extract, Transform and Load data into Data Warehouse and Data Mart.**
- ❖ Developed and implemented predictive models using machine learning algorithms such as linear regression, classification, multivariate regression, Naive Bayes, Random Forests, K-means clustering, KNN, PCA and regularization for data analysis.
- ❖ Wrote complex Spark SQL queries for data analysis to meet business requirement.
- ❖ Analyze and Prepare data, identify the patterns on dataset by applying historical models. Collaborating with Senior Data Scientists for understanding of data
- ❖ Perform **data manipulation, data preparation, normalization, and predictive modelling. Improve efficiency** and accuracy by evaluating model in Python
- ❖ Familiar with various **ML algorithm such as Linear Regression , Logistic Regression ,KNN ,K-Means ,Naïve Bayes ,Mean, Median, Mode ,Decision Tree ,Random Forest, Support Vector Machine ,Principal Component Analysis ,NLP ,XG Boost**
- ❖ Used various types of Core Data Science/ML Libraries /Packages such as PySpark , Pandas , Numpy , Seaborn , Matplotlib ,Scikit Learn , Keras ,Tensorflow ,Scipy , Statsmodels , Plotly
- ❖ This project was focused on customer segmentation based on machine learning and statistical modelling effort including building predictive models and generate data products to support customer segmentation
- ❖ Designed front end and backend of the application utilizing Python on Django Web Framework.
- ❖ Analyzed the requirements and designed the flow of task using flow charts and dependently designed flow between pages of the UI.
- ❖ Responsible for creating of website functionality with JavaScript, HTML, CSS .
- ❖ For the development of the user interface of the website used HTML, CSS, Java Script and AJAX
- ❖ Used various types of Django libraries such as **Django-rest-framework ,Django-cors-headers , Django-debug-toolbar , Django-extensions ,Sentry-sdk , Django-allauth , Django-filter , Django-import-export**
- ❖ Experience in developing views and templates with Python and Django's view controller and templating language to create a user-friendly website interface.
- ❖ To update a portion of a webpage used JavaScript and JSON.
- ❖ Expertise in developing consumer based features and applications with Python, Django, HTML, Behavior Driven Development (BDD) and pair based programming.
- ❖ Experience in the required XML Schema documents and implemented the framework for parsing XML documents.
- ❖ Modify the existing Python/Django modules to deliver certain format of data.
- ❖ Written Python scripts to parse **JSON documents and load the data in database.**

- ❖ Performed data analysis using Pandas as API to convert data into tabular format
- ❖ Used google API's and created **visualizations such as pie charts, donut charts and displayed in the web application**
- ❖ For the development of the web applications utilized CSS and Bootstrap.
- ❖ To share the information across the applications used pickle/unpickle in python.
- ❖ Utilized Python libraries like Numpy and matplotlib for generating graphical reports.
- ❖ Build SQL queries for performing various **CRUD operations like create, update, read and delete.**
- ❖ Experienced with GIT version control and deployed the project to Heroku.

## TECHNICAL SKILLS:

- ❖ Core Libraries worked: Matplotlib | Numpy | Pandas | Scikit Learn | Seaborn
- ❖ Process worked with: DevOps + Agile + V-Model
- ❖ Machine Learning: Logistics Regression, Linear Regression, K-means
- ❖ Analytic/Predictive modeling Tools: Jupyter, Anaconda
- ❖ Visualization Tools: Tableau, Python – Matplotlib
- ❖ ETL: Pyetl
- ❖ Programming Language - Python, SQL, Java
- ❖ Tools: SQL Developer
- ❖ Web Designing :- HTML, CSS, JavaScript
- ❖ Web server :- WSGI, Apache.
- ❖ Database Skills :- MySQL, Oracle.
- ❖ Versioning Tools :- GIT
- ❖ Build Tools :- PyBuilder
- ❖ RDBMS :- MYSQL, SQLite3
- ❖ Unstructured database :- Mongo DB
- ❖ Continuous Integration Tool :- Jenkins
- ❖ Data Modeling Tools :- MySQL Workbench, DB Browser For SQLite
- ❖ Framework Software :- Django, Flask
- ❖ Defect Reporting Tool :- HPALM
- ❖ Web Service :- REST -JSON, DRF (Django Rest Framework)
- ❖ Development Tools :- PyCharm, Notepad ++
- ❖ OS and Networking :- Windows 7, Windows 10, Ubuntu/Linux 18.2

## Working Zone - Organization :

Currently working as Python-Data Scientist, For Client Mindtree solution -<https://www.mindtree.com/>, Pune, since AUGUST 2021 to till date.

PayRoll Company : Transol System PVT.LTD – <https://www.transol.in>

## PROJECTS;

### Project Sequence 1

- **Project Name :** Industrial Ethernet Switch - SCALANCE X -Siemens
- **Client :** Edpnet, Belgium
- **System/Component :** Telecom OSS Provisioning& Activation ,CRM
- **Technology :** Python, Django, Oracle, GIT, SVN, Rest – Web service, Pandas, etl, Statistical Analysis
- **Roles :** Python Data analyst / Python Django REST web Development

## Detail Project Overview and Workflow :

Powerful industrial communication networks are the foundation for digitalization. Within these networks, data must be systematically and reliably distributed across all levels. Industrial Ethernet switches are perfect for the job. With SCALANCE X, Siemens offers several product lines with different functional scopes depending on the specific networking task – the right switch for every application. The segmenting of networks by means of virtual local area networks (VLANs) significantly boosts cybersecurity. VLANs act as broadcast blockers and only permit data traffic between defined participants, meaning that potential cyber-attacks can affect only a small number of participants, if any.

## Task Handled

- Experience in developing entire frontend and backend modules using Python on Django Web Framework.
- Experience in working at various phases of project such as analysis, design, development, and testing.
- Using Django Framework model, implemented MVC architecture and developed web applications with superb interface.
- Created user interface of website using Python, HTML5, CSS, JSON and JQuery. Used CSS bootstrap framework for developing web application.
- Developed the business logic in views for the URLs created and linked the webpages to functions in views to show the output to the end-user or to store information from the website into the database
- Worked on Django REST framework as it is much faster to read data and it can be cached. REST allows more formats than SOAP and gives better support for browser clients as it supports JSON.
- Written scripts to import data, export data and data modeling.
- Worked on Django ORM API to create and insert data into the tables and access the database.
- Extensive experience in using the python packages such as NumPy, SciPy, Pandas, Beautiful Soap, Pickle and OS.
- Built multifunction readmission reports using python pandas and Django frame work
- Involved in Preparing Low level Design of Application, To take part in software and architectural development activities
- Involved in designing and preparation of call flows with usability services.
- Perform data exploratory analysis using Matplotlib
- Collected historical data and third party data from different data source, Improved Operation activities. Used Linear & Logistic Regression
- Understand and Analyse Customer requirements and Business logic, Perform data cleansing, data imputation and data preparation using Scikit Learn and Numpy.
- Conduct software analysis, programming, Unit and White box testing and debugging
- Identifying production and non-production application issues, Ensuring designs comply with specifications, Transforming requirements into stipulations
- Support continuous improvement, investigating alternatives and technologies, Presenting for architectural review
- Managing Python application development, Develop, test, implement and maintain application software
- Validated already developed python reports. Fixed the identified bugs and re-deployed the same.
- Recommend changes to improve established python application processes
- Develop technical designs for application development
- Develop application code for python programs, involved in client interaction to sort out the Requirement issue
- Used hpalm to Handle Defect management Process, Implementing a Working Timeline and Deadline Adherence
- Create the Reporting and share with top management

## Project Sequence 2

- **Project Name :** **Dynamic Route Optimization**
- **Client :** Edpnet, Belgium
- **System/Component :** Supply Chain Analytics , Telecom
- **Technology :** Python, Django, Oracle, GIT, SVN, Rest – Web service, Pandas, etl, Statistical Analysis
- **Roles :** Python Data analyst / Python Django REST web Development

## Detail Project Overview and Workflow :

For the forecast to be accurate, user need to have a wide range of data. When the number of data sets is insufficient for the effective analysis, machine learning offers several methods of how to solve the problem:

Data augmentation allows you to significantly increase the diversity of data available for training models, without actually collecting new data. The augmentation techniques used in deep learning applications depends on the type of data:

Incremental learning is a method of machine learning which does not require a large amount of data for training a model. Instead, learning starts with a very simple model typically predicting the average value with some degree of deviation:

Reinforcement learning is one of three basic machine learning techniques alongside supervised learning and unsupervised learning. It uses rewards and punishment as signals for positive and negative behavior.

Machine learning helps to program autonomous vehicles and robots which are widely used in warehouses. ML helps understand where a package is in the entire logistics cycle. It allows supply chain professionals to track the location of goods during transportation. With ML, it is possible to identify quality issues in line production at the early stages. It is possible to predict the delivery of the parcel taking into account all the changing conditions. As a result, consumers receive a much stronger customer experience with more accurate delivery date predictions. Machine learning algorithms can analyze huge amounts of data and draw patterns for every business to protect it from fraud.

Submodules :

Inventory management , Inventory management ,Logistics & transportation ,Production, Chatbots, Chatbots ,Security , Business

### Task Handled :

- ❖ Involved in requirement analysis, design, estimation and testing of the assigned tasks in open stack WITH BA
- ❖ Interpreting data, analysing results using statistical techniques
- ❖ Developing and implementing data analyses, data collection systems and other strategies that optimize statistical efficiency and quality
- ❖ Design python script with respect to ensure functionalities meets customer requirements
- ❖ Extensive experience in using the python packages such as NumPy, SciPy, Pandas, Beautiful Soap, Pickle and OS.
- ❖ Worked on Django REST framework as it is much faster to read data and it can be cached. REST allows more formats than SOAP and gives better support for browser clients as it supports JSON.
- ❖ Created user interface of website using Python, HTML5, CSS, JSON and JQuery. Used CSS bootstrap framework for developing web application.
- ❖ Acquiring data from primary or secondary data sources and maintaining databases
- ❖ Work with stakeholders to determine how to use business data for valuable business solutions
- ❖ Search for ways to get new data sources and assess their accuracy
- ❖ Browse and analyze enterprise databases to simplify and improve product development, marketing techniques, and business processes
- ❖ Create custom data models and algorithms
- ❖ Use predictive models to improve customer experience, ad targeting, revenue generation, and more
- ❖ Develop the organization's test model quality and A/B testing framework
- ❖ Coordinate with various technical/functional teams to implement models and monitor results
- ❖ Develop processes, techniques, and tools to analyze and monitor model performance while ensuring data accuracy

### Project Sequence 3

- **Project Name** : **Payment Intelligence**
- **Client** : Novalnet ,Germany
- **System/Component** : **Payment Gateway Analytics**
- **Technology** : **Python, Django, Oracle, GIT, SVN, Rest – Web service, Pandas, etl, Statistical Analysis**
- **Roles** : **Python Data analyst / Python Django REST web Development /Analyst**

### Detail Project Overview and Workflow :

A merchant account allows you to accept card payments for goods or services in person, over the telephone, or on the Internet. Being able to accept online payments is crucial to holding a competitive edge in today's business environment. Card Payment Systems can provide your business convenient, reliable, and secure merchant account solutions. It has several Modules like Buyer, Payer and Admin. A payment processor is appointed by a merchant to handle transactions from various channels such as credit cards and debit cards for merchant acquiring banks. They are usually broken down into two types: front-end and back-end. A payment gateway is a merchant service provided by an e-commerce application service provider that authorizes credit card or direct payments processing for e-businesses, online retailers, bricks and clicks, or traditional brick and mortar. The payment gateway may be provided by a bank to its customers, but can be provided by a specialised financial service provider as a separate service, such as a payment service provider. A payment gateway facilitates a payment transaction by the transfer of information between a payment portal (such as a website, mobile phone or interactive voice response service) and the front end processor or acquiring bank.:

This project involves setting up an AWS environment, utilizing Docker for containerization, creating a Django project within a Docker container, managing file uploads to an S3 bucket, processing these files with Lambda functions, storing data in PostgreSQL, employing HTML/CSS for frontend interface, orchestrating tasks with Apache Airflow, and integrating MySQL and PostgreSQL databases with Django.

- ❖ **Setting up EC2 Instance and Docker:** The project begins by provisioning an EC2 instance on AWS and installing Docker on it. Docker provides a platform for building, shipping, and running applications within containers, ensuring consistency across different environments.
- ❖ **Creating a Linux Image in Docker:** Within the Docker environment, a Linux image is created as the base for hosting the Django project. This image serves as the runtime environment for the subsequent steps.
- ❖ **Setting up Django Project:** Using commands within the Linux image, a Django project is established. Django is a high-level Python web framework that facilitates rapid development and clean, pragmatic design.
- ❖ **File Upload to S3 Bucket via Django:** With Django, files are uploaded to an Amazon S3 bucket. S3 buckets provide scalable object storage, enabling seamless data transfer and management within the AWS ecosystem.
- ❖ **Processing Files with Lambda Function:** AWS Lambda functions are utilized to process files uploaded to the S3 bucket. These serverless functions execute code in response to triggers, in this case, file uploads.
- ❖ **Storing Data in PostgreSQL:** The processed data is stored in a PostgreSQL database. PostgreSQL is a powerful, open-source relational database management system known for its reliability, scalability, and extensibility.
- ❖ **HTML/CSS for Interface:** HTML and CSS are employed to create an intuitive interface for users interacting with the Django project. HTML defines the structure of web pages, while CSS enhances their appearance and layout.
- ❖ **Orchestrating Tasks with Apache Airflow:** Apache Airflow, a platform for programmatically authoring, scheduling, and monitoring workflows, is used to manage the flow of tasks in the project. A Python script within a Directed Acyclic Graph (DAG) file orchestrates the sequence of actions.
- ❖ **MySQL and PostgreSQL Integration with Django:** Django is configured to connect to both MySQL and PostgreSQL databases. MySQL serves as the backend for input data, while PostgreSQL is used for output data. This configuration enables seamless data management and retrieval within the Django project.
- ❖ **Integration with RDS:** The project relies on Amazon RDS (Relational Database Service) to manage and scale the relational databases used by Django. RDS simplifies database administration tasks such as provisioning, patching, and backups, ensuring the reliability and availability of the database infrastructure.



- ❖ By combining these technologies and services, the project achieves efficient and scalable data processing, storage, and management within the AWS environment, leveraging the benefits of containerization, serverless computing, and workflow orchestration.

❖ **Roles and Responsibilities :**

- ❖ Involved in requirement analysis, design, estimation and testing of the assigned tasks in openstack WITH ba
- ❖ Interpreting data, analyzing results using statistical techniques
- ❖ Developing and implementing data analyses, data collection systems and other strategies that optimize statistical efficiency and quality
- ❖ Design python script wrt to ensure functionalities meets customer requirements
- ❖ Acquiring data from primary or secondary data sources and maintaining databases
- ❖ Work with stakeholders to determine how to use business data for valuable business solutions
- ❖ Search for ways to get new data sources and assess their accuracy
- ❖ Browse and analyze enterprise databases to simplify and improve product development, marketing techniques, and business processes
- ❖ Create custom data models and algorithms
- ❖ Use predictive models to improve customer experience, ad targeting, revenue generation, and more
- ❖ Develop the organization's test model quality and A/B testing framework
- ❖ Coordinate with various technical/functional teams to implement models and monitor results
- ❖ **Develop processes, techniques, and tools to analyze and monitor model performance while ensuring data accuracy**

**Declaration:-**

I hereby declare that the above-mentioned information is correct to the best of my knowledge.

Date:

Location:

Regards,

Pratik Mohite