



EDUCATION

- Bachelor's OF Engineering (Mechanical Engineering) - G.M.Vedak Institute Of Technology College Of Engineering,Tala,Raigad
- University :-University Of Mumbai,Mumbai

AWARDS

- Received Performance Star performer award for good performances .
- Received appreciation for E2E Delivery from Client EMS -USA

HOBBIES



Machindra Padmakar Mhatre

Python Data Scientist

PROFILE

To find a Position in a cutting edge Organization that will utilize either or all of my **Python /Data science /Machine Learning /Artificial Intelligence /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.

PROFESSIONAL EXPERIENCE

Python Data Scientist –

Current work experience with client Elisa Telecom , Finland as a **Python data scientist** for **Industrial 4G LTE Routers** on Optical Fiber Networks

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**

Tools and Associated Technologies Used :

- ❖ Unstructured Database Used – MongoDB
- ❖ UI Application Programming Language - HTML, CSS, JavaScript, JQuery and Bootstrap.
- ❖ Web Scraping Library : BeautifulSoup 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 | Tensor flow | Seaborn | Keras | |Scipy

Process worked with: DevOps + Agile + V- Model

Familiar with Software Programming Language

Python | Java | C++ | Java Script | CSS | HTML | Boot Strap | J Query

CERTIFICATIONS:

 **Python Data Science**

Professional Work Experience

- ❖ Highly experienced Data Scientist with over **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.

Key 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 :- Oracle 10 g
- ❖ Unstructured database :- Mongo DB
- ❖ Continuous Integration Tool :- Jenkins
- ❖ Data Modeling Tools :- Oracle Designer,
- ❖ 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
- ❖ Certified Python Programme Professional -CPPP

Working Zone Organization

Currently working as Python Data Scientist With Tech Mahindra - <https://www.techmahindra.com/>, Pune since September 2019 to till date.

Projects

Project Sequence 1

- **Project Name : Industrial 4G LTE Routers**
- **Client :** Elisa Telecom , Finland
- **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 :

3X36 Industrial 4G Router use High speed 4G module, strong wireless communication with major network, including TD-LTE,FDD-LTE,TD-SCDMA,WCDMA,EVDO,CDMA1X,GPRS/EDGE.

Using high-performance industrial-grade wireless modules, industrial grade high stability high precision components, -35 ~ +75 ° C extremely wide temperature design, easily adapt to the high-temperature cold working environment for unmanned systems to provide reliable group network with stable communication

These compact, high-density, advanced Gigabit and multi Gigabit Ethernet (GigE) platforms are designed for the most demanding of converged networks. Offering high-speed flexible uplinks, 200G stacking, industry leading 95W PoE, and high density 10G multi-gigabit ports ready for Wi-Fi 6, these platforms are the right choice for the next generation of enterprise switching networks.

Offering comprehensive security features, they are well-equipped to secure the network edge. These high performance, versatile LAN switches can be positioned:

At the edge of mid- to large-sized converged enterprise networks

At the aggregation layer ,In a small enterprise network core,In the data center for GigE server connectivity and SDN applications. The Alcatel-Lucent Omni Switch 6560 Stackable Multi-Gigabit Ethernet LAN value switch family is an industry leading campus access solution for enterprise networks. With multi-gigabit ports for high-speed IEEE 802.11 ac devices, 10GigE uplinks and 20 GigE stacking, the OmniSwitch 6560 is the right solution for your next generation network.

Offering a design optimized for flexibility and scalability as well as low power consumption, the OmniSwitch 6560 is an outstanding edge solution. It uses the field-proven Alcatel-Lucent Operating System (AOS) to deliver highly available, secure, self-protective, easily managed and eco-friendly networks.

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** : **Maintenance Intelligent Grid**
- **Client** : Elisa Telecom , Finland
- **System/Component** : Telecom , Supply Chain
- **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 :

Grid analytics is a solution for end user to check the availability of product in Warehouse .Market Basket Analysis is a technique that identifies the strength of association between a pair/group of products that are purchased together. In simpler words, it's based on the concept that if a customer buys a product, they are more or less likely to buy another related product. Market Basket Analysis also uses machine learning/deep learning algorithms, like product recommendation engines.

SERP (Search Engine Result Page) analytics help user measure how customer's interact with the search results on user SERP, which gives insight to how customer search engine is functioning. This gives user important data points about where to improve the search experience.

Association rule learning is a machine learning method that is used for discovering associations between products. It does not consider the order of the purchase of products. Product Analytics will show user most popular products and availability along with detailed insight into how often each product is purchased and how much revenue it generates.

user can also see the keyterms shoppers are searching and which product they end up buying, so user can update the product naming to better fit for customers.

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** : Intelligent Transaction Routing
- **Client** : Electronic Merchant Systems-EMS-USA
- **System/Component** :Payment Analytics
- **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 :

Raw Data from corporate databases is extracted. The data could be spread across multiple systems heterogeneous systems. The data is cleaned and transformed into the data warehouse. Payment Analytics refers to integrating and processing payments data from various sources like cards, mobile wallets, and bank transfers. If used efficiently, it can benefit businesses by providing insights into their revenues, payment trends, and customer shopping behavior. The table can be linked, and data cubes are formed. Using BI system the user can ask queries, request ad-hoc reports or conduct any other analysis. Business intelligence is a system of various solutions used to garner insights from different types of data. Driving business decision making is the primary use of business intelligence and is accomplished by utilizing different techniques to understand historical, live, and predictive data. In this bi defined page, we'll delve deeper into the purpose of BI and specifically, it's relation to an important element of BI, business intelligence reporting. Businesses are able to source data from external and internal systems, assemble the data for analysis, generate and execute queries against the collected data to create reports and dashboards for decision makers. Visualizations within these reports and dashboards are powerful statistical tools that empower decision makers to action data quicker. Reporting is an early step in the process of data processing. It presents data in an interactive fashion to turn it into actionable information. There can be many levels of interactivity within a report such as the ability to drill down, sort, and filter, as well as additional capabilities such as self-service editing which allows you to further explore your data for more insights. Business intelligence reporting is most beneficial when it is designed to help track and measure your strategic business goals. Other use cases for reporting tools include tracking key performance indicators, maintaining regulatory compliance, or even measuring goals between different departments or applications. Report developers and report writers use tools such as This solution Designer, our report design tool, to distinguish elements such as data sources, display formats, graphics, filters, and other options that are essential for report presentation. Enterprise reporting solutions, such as This solution , also allow end-users to create reports and dashboards directly from web application interfaces using ad-hoc data resources specified by developers. Users are therefore given the ability to generate speedy data-driven decisions through building report components, collecting various data, and designing ad hoc reports. Reports can be published to a reporting engine, such as This solution Server, which extracts data and generates reports.

Task Handled

- ❖ Understand and Analyse Customer requirements and Business logic
- ❖ 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
- ❖ 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.
- ❖ 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, 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

Personal Details

- Father :- Padmakar Janardan Mhatre
- Mother name :-Ratna Padmakar Mhatre
- Current address :- H.N-1200 near suraj bakery Telipada,Tal-Uran,Navi Mumbai,Pin-400702
- Date of birth :- 21/10/1995
- Martial status :- Single
- Language :- Marathi , Hindi , English

Declaration:-

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

Date: -

Place: - Pune.

Regards

Machindra Padmakar Mhatre