

# VATSAL JIGAR KADAKIA

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## Education

**Stevens Institute of Technology, New Jersey**

**Aug 2022 – May 2024**

*Masters of Science in Data Science*

*GPA: 3.8/4.0*

Coursework: Time Series Analysis, Deep Learning, Applied Machine Learning, Statistical Methods, Optimization Methods

**University of Mumbai, India**

**Aug 2018 – May 2022**

*Bachelor of Engineering in Computer Engineering*

*GPA: 3.82/4.0*

Coursework: DBMS, Data Structures, Data Analytics, Software Engineering, Object-Oriented Programming

## Technical Skills

**Languages:** Python, R, SQL, C++, JavaScript, XSL, XML, JSON, Dart, HTML, CSS

**Database:** MySQL, NoSQL, Firebase, MongoDB, Hadoop, Apache, Airflow, Spark

**Developer Tools:** Git, GitHub, AWS, Jira, Confluence, Microsoft Power BI, Tableau, Oracle Analytics Cloud

**Technologies/Frameworks:** Docker, React, Flutter, Flask, Excel(VBA, Macros, Pivot tables)

## Experience

**Minerals Technologies Inc, Bethlehem, PA**

**Jun 2023 – Dec 2023**

*IT Intern - MTI Oracle*

- Collaborated with the **Oracle Analytics** team of the USA, Europe and India to migrate client data from **Oracle E-Business suite** to **Oracle Analytics Cloud(OAC)**.
- Developed **composite visualizations** of financial portfolio on OAC dashboard (**Sales Data Mart and ADW Sales Voice - Datasets**) transacting CY expense of \$893 Millions, PY expense of \$629 Millions and 42% Change expense.
- Revamped data project with OAC's **Machine Learning module**, reducing duplicate data by 40% and facilitating timely report and dashboard creation.
- Automated incident and request handling of company's **ServiceNow Chatbot**, reducing employee manual work by 35% and improving ServiceNow accessibility by 50%.
- Mastered and deployed **Java Scripts** using in-built **Natural Language Processing(NLP)** techniques to improvise plugins(ITSM, Conversational Appointment booking).

## Projects

**Demand Forecasting - ARIMA, SARIMA, ARIMAX** | *Time Series Analysis, Python*

**Academic Project**

- Conducted **EDA** on Store Item dataset to check if series is stationary or not by plotting **ACF** and **PACF** graphs and took their first differencing. Obtained p-value < 0.05.
- Implemented ARIMA, SARIMA & ARIMAX models to compare **AIC** and **MSE** scores. **ARIMAX(6,1,7)** was the best model with AIC score 10110.465 and MSE 22.95. Plotted diagnostics to predict forecast of 50 items in 10 stores.

**Pyspark weather API data streaming and analysis** | *Python, Machine Learning, SQL*

**Academic Project**

- Engineered a **PySpark** streaming application integrating **SQL** and machine learning algorithms to dynamically fetch weather data from custom-selected locations and dates via a **weather API**(Processed over 25 fields).
- Enhanced functionality with **PyML operations** to compare weather data from two locations simultaneously, aiding event scheduling teams and skincare brands in strategic decision-making.

**Grocery Store Optimization** | *R, Python, Machine Learning*

**Academic Project**

- Conducted **Z-test, Chi-Square** test to analyze significant difference between sign up rate for cheaper expensive mailer of delivery club. Performed **ANOVA** to find p-values of all columns(response variable as Sales column).
- Obtained 96% loyalty score accuracy, 93% behavior classification with **Regression** algorithms, significantly transforming store layout and marketing.

## Publications and Courses

**Data Science Infinity - Andrew Jones (Course)**

**Dr.Megharani Patil, Vatsal Kadakia, Yash Gupta, Harsh Doshi(2022); Automated Healthcare System using Gamification and AI based Chatbot; Computer Vision (Applications of Visual AI and Image Processing),vol 15,De Gruyter**

**Mendon, A., Patil, M., Gupta, Y., Kadakia, V., Doshi, H. (2023). Automated Healthcare System Using AI Based Chatbot. In: Balas, V.E., Semwal, V.B., Khandare, A. (eds) Intelligent Computing and Networking. Lecture Notes in Networks and Systems, vol 632. Springer, Singapore**