# Mahesh Singh

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## Professional Summary

Enthusiastic Data Scientist with a solid foundation in **Statistices**, **machine learning**, **data analysis**, and data visualization gained through impactful internships at Ineuron and Pwskills. Proficient in Python, SQL, and a variety of data science tools, with a proven track record of deriving actionable insights from complex datasets. Passionate about applying data-driven solutions to real-world challenges and contributing to Google's mission of making information universally accessible and useful.

## Technical Skills

- **Programming Languages:** Python, SQL, Java

- **Machine Learning:** TensorFlow, PyTorch, Scikit-learn, Keras

- **Data Visualization:** Tableau, Power BI, Matplotlib, Seaborn

- **Big Data Technologies:** Hadoop, Spark, Hive

- **Database Management:** MySQL, PostgreSQL, MongoDB, NoSQL

- **Cloud Platforms:** Google Cloud Platform (GCP), AWS, Azure

- **Tools:** Jupyter, Git, Docker

## Professional Experience

### Data Science Intern | Ineuron
June 2023 - August 2023

- Developed and optimized machine learning models predicting customer behavior, increasing prediction accuracy by 87%.

- Conducted comprehensive exploratory data analysis (EDA) on datasets exceeding 1 million records to identify trends and insights.

- Collaborated with senior data scientists to preprocess data, including data cleaning and feature engineering, enhancing model performance.

- Designed and presented data visualizations with Matplotlib and Seaborn, facilitating stakeholder understanding and decision-making.

### Data Science Intern | Pwskills
January 2023 - May 2023

- Participated in a team project to analyze and visualize sales data, resulting in a 15% improvement in sales strategy.

- Developed Python scripts for data cleaning, transformation, and analysis.

- Utilized SQL to query and manage relational databases.

- Presented analysis results to the team using interactive dashboards in Tableau.

# Projects

## Customer Segmentation using Clustering Techniques
Tools: Python, Scikit-learn, K-means

- Implemented k-means clustering to segment customers based on purchasing behavior.
- Analyzed the segments to identify key customer groups and tailored marketing strategies accordingly, resulting in a 25% increase in sales.

## Sales Forecasting with Time Series Analysis
Tools: Python, ARIMA, LSTM

- Used ARIMA and LSTM models to predict future sales trends for a retail company.
- Improved forecasting accuracy by 20%, aiding inventory management and reducing stockouts.

## Predictive Analytics for Healthcare
Tools: Python, TensorFlow, Logistic Regression, Random Forest

- Developed a predictive model to forecast patient readmissions.
- Utilized various machine learning algorithms, including logistic regression and random forests.
- Achieved an accuracy of 85%, helping the hospital reduce readmission rates by 10%.

## Diamond Price Prediction
Tools: Python, Scikit-learn, Linear Regression

- Built a model to predict diamond prices based on various attributes such as carat, cut, color, and clarity.
- Achieved a mean absolute error (MAE) of 0.4, enhancing pricing accuracy for a jewelry retailer.

## Diabetes Prediction
Tools: Python, Scikit-learn, Logistic Regression, Random Forest

- Created a model to predict diabetes using patient health data.
- Achieved an accuracy of 78% and an F1 score of 0.75, aiding early diagnosis and treatment.

## Albanian Forest Fire Prediction
Tools: Python, Scikit-learn, Random Forest, XGBoost

- Developed a model to predict the occurrence of forest fires based on meteorological data.
- Achieved an accuracy of 82%, helping local authorities to allocate resources more effectively.

## Wafer Fault Detection
Tools: Python, Scikit-learn, SVM

- Implemented a machine learning model to detect faults in semiconductor wafers.
- Increased fault detection accuracy to 90%, reducing production errors and costs.

# Certifications

- Google Data Analytics Professional Certificate
- IBM Data Science Professional Certificate

- Machine Learning by Pwskills

# Education

### Data Science Master Course| Pwskills Online

Completed: 26 February 2023

- Relevant Coursework: Machine Learning, Data Mining, Statistical Analysis, Big Data Analytics
- Academic Projects: Developed a predictive model for healthcare readmissions, achieving an 85% accuracy rate.

### Diploma in Computer Science

Completed: 2024

- From: Goverment Polytechnic College, Kota, Rajasthan
- Relevant Coursework: Algorithms, Database Management, Programming Languages like c , python
- Academic Project: Student Attendance Menagement , sentiment analysis