

# Sree Lekshmi Prasannan

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## EDUCATION

### State University Of New York at Buffalo

*Masters in Engineering Sciences in Data Science*

**Buffalo, New York**

*January 2023 - May 2024*

- Coursework:** Machine Learning, Numerical Mathematics for Data Scientists, Probability Theory, Statistical Learning and Data Mining, Data Model Query Language, Data Intensive Computing, Time Series, Deep Learning

### Shri Shankaracharya Group Of Institutions

*Bachelor Of Technology in Information Technology*

**Bhilai, Chhattisgarh, India**

*June 2018- June 2022*

- Coursework:** Database Management System, Design Analysis of Algorithms, Object-Oriented Programming, Artificial Intelligence, Discrete Structures, Statistical Methods

## SKILLS

**Database:** MySQL, SQLite, PostgreSQL, NoSQL/MongoDB, Oracle, Firebase, TSQL

**Languages -** Python, SQL, Pandas, R, HTML, C/C++, Dart, CSS, Java

**Framework-** PyTorch, Hadoop, Django, FastAPI, RStudio, MATLAB, Pyspark, TensorFlow, Nodejs, Docker

**Tools and Technologies -** Scikit-learn, Looker, Azure, Tableau, PowerBI, Matplotlib, AWS, SAS, Excel, Business Intelligence

## EXPERIENCES

### Community School of Arts Foundation

*Marketing Analyst*

**Los Angeles, California**

*June 2024 - Present*

- Architecting machine learning models with **PyTorch** and **TensorFlow** to forecast sponsorship and revenue, targeting a 30% increase in contributions to support over 1000 K-12 students within the first year.
- Executing **ETL** and **data warehousing** to integrate Salesforce data with **T-SQL**, enhancing data retrieval and analysis by 50%.
- Leveraging **Tableau**, **Excel (VLOOKUPS, pivot tables)**, and statistical analysis to craft targeted marketing strategies and enhance sponsor engagement.

### Science and Technology Entry Program (STEP)

*Research Aide Analyst*

**Buffalo, New York**

*October 2023 - June 2024*

- Led **Data Analysis Initiatives** at **STEP**, employing advanced forecasting models to enhance student engagement, resulting in a **60%** increase in registrations and exceeding annual targets by **200** attendees.
- Improved Student Performance by 30% through the strategic application of **scikit-learn's decision trees and random forests** to pinpoint and address areas of weakness.
- Devised **data-driven** enhancements to workshop schedules, increasing student attendance by **35%**.
- Formulated **PowerBI reports** and **visualizations** using **DAX** and **KPIs**, improving program strategies and engagement by 25%.

### Bhilai Steel Plant

*Data Analyst, Intern*

**Chhattisgarh, India**

*July 2021 - October 2021*

- Developed "E-Gate Pass System", using **FBProphet** algorithm to **forecast** peak traffic, enabling scheduled vendor goods pickup.
- Created a **Flutter** app for order/vehicle management, using **SQLCipher**, enhancing vendor engagement and **data safety**.
- Resolved data integration issues between in-house databases and **Oracle ERP**, ensuring seamless data flow for real-time analytics.
- Implemented **QR code entry** and used **CNN** to increase verification speed by **30%**, with **Sendgrid** for **25%** faster notifications.
- Received appreciation from General Manager for increasing the order pickups per day by **40%** & reducing waiting time by **55%**.

### CodeSpeedy

*Junior Programmer*

**West Bengal, India**

*March 2021 - June 2021*

- Built cloud-based services for their enterprise platform to streamline client collaboration.
- Designed a portal where clients can monitor the project progress from the **Kanban board** and stay informed on the delivery date.
- Spearheaded a self-service meeting scheduler application between the client and project manager using a shared calendar.

## PROJECTS

### ECG Anomaly Detection with LSTM Autoencoders: Pytorch

*Feb 2024- May 2024*

- Engineering an **LSTM Autoencoder** in **PyTorch** for ECG anomaly detection, targeting a 20% improvement in identifying abnormal heartbeats from time series data.
- Fine-tuning anomaly detection threshold via reconstruction loss for 95% **precision** detecting normal from abnormal ECG signals.
- Applying signal **normalisation** and anomaly segmentation in ECG data preprocessing, boosting LSTM Autoencoder detection sensitivity by 5%.

### StoryWeaveAI: LLM, gTTS, NLP, Clarifai gRPC

*Feb 2024 -April 2024*

- Engineered a **Streamlit AI Story Generator** utilising **ChatGPT-3.5 (LLM)** for dynamic narrative creation from user inputs.
- Enabled text-to-audio conversion via **pyttsx3**, enhancing story accessibility and user engagement.
- Refined narrative generation across 5+ genres using Python and **OpenAI's API**, elevating story quality and diversity.

### Used Car Auction Price Predictor: Pyspark, Seaborn, Streamlit, PowerBI

*Oct 2023- Dec 2023*

- Analysed 370,000+ car records for dynamic market valuation, predicting accurate used vehicle prices.
- Employed various **regression** algorithms including **Decision Tree, LSTM, Random Forest, LightGBM**, and **Gradient Boosting; XGBoost** led with 79%  $R^2$  score.
- Optimised an advanced **data pipeline** for CSV uploads, ensuring streamlined preprocessing and **EDA** for real-time car valuation.
- Generated Streamlit visualisations for car **analytics**, enabling custom valuations and brand-age analysis.