WORKFORCE ANALYTICS

Retail Giant Solves Complex Attrition Problems Using AI/ML-Based Prediction Models

Client Profile

US-based multinational retail corporation that operates a chain of hypermarkets/supercenters, discount department stores, and grocery stores with a huge workforce.

Business Context

The customer employs several types of employees (part-time, management, full-time) across 2,000 stores and predicting the headcount need as well as the attrition pattern was becoming very difficult.
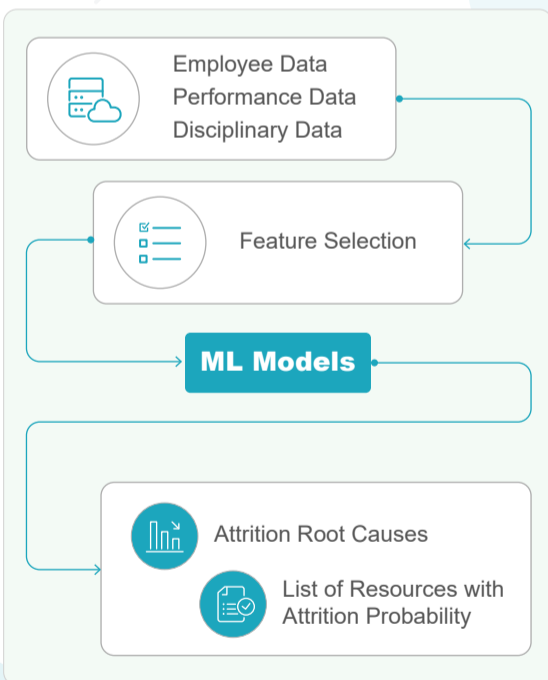
Challenges

- Large employee base across several tiers and regions
- Employees needed per store and their attrition patterns depended on multiple factors like policies, regulations and socio-economic indicators
- Every store needed a different prediction model and there was no existing model to establish the baseline performance of these models

Solution

- Bristlecone created several deep neural network-based classification models from scratch, forming the basis for the later employee attrition model
- We established the critical drivers for these models and assigned them weightages
- These models picked up external signals and correlated them with workforce patterns for accurate headcount forecasting
- We scaled the solution and trained thousands of models simultaneously using parallel cloud processing
- The output is easy for all stakeholders to use and visualize

Digital Enablers

Employee Data
Performance Data
Disciplinary Data

Feature Selection

ML Models

Attrition Root Causes

List of Resources with Attrition Probability

Business Impact

- Identified key attrition factors and suggested remedial measures to reduce employee churn
- Improved the accuracy of the employee headcount forecast substantially
- Improved the forecast accuracy for attrition propensity at an employee level
- The cloud-based, scalable, user-friendly solution made quarterly planning easy for the Finance department

Bristlecone Advantage

- Deep domain expertise
- Solution and technology enablers
- Two decades of experience in automation and data engineering