
Predicting Future Footfall with Neural Networks:

The Next Big Leap for Retail  Sensing

How to increase Retail Intelligence

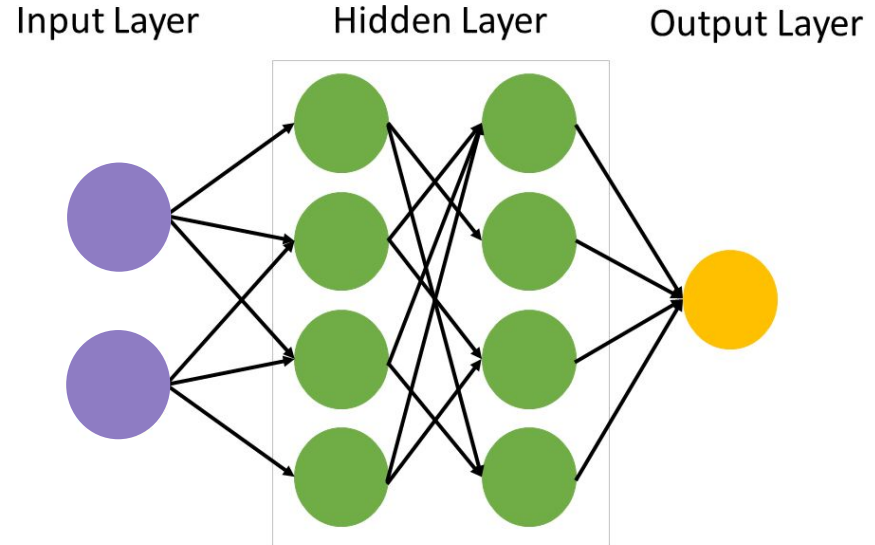
The retail industry has always thrived on data. Understanding customer behavior, predicting trends, and optimizing store performance is crucial for retailers to remain competitive. But, how do you forecast something as dynamic as footfall? Enter neural networks.



What are Neural Networks?

Neural networks

are a subset of machine learning, inspired by the structure and functional aspects of the human brain. They consist of layers of interconnected nodes or "neurons" that can learn from data by adjusting the connections between these nodes.



Artificial Neural Networks

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How Can Neural Networks Predict Footfall?

Rainy days might see fewer visitors, while sunny weekends can lead to crowded stores.

Sales and promotions can draw more visitors.

Economic downturns might see a reduction in discretionary spending and footfall.



Weather

Local
Holidays

Store
Promotions

Competitor
Actions

Economic
Conditions

Festivals and local holidays can either spike or reduce the number of visitors.

Opening of a new competitor store nearby or their promotional activities can affect footfall.



By considering all these parameters and more, a neural network can provide a holistic time series prediction, fine-tuned to the specificities of a location and time.

Use Cases

Staff Allocation

Retailers can allocate staff efficiently, ensuring maximum coverage during peak times and reducing overheads during predicted lulls.

Inventory Management

Predicting footfall allows retailers to manage their inventory better, ensuring they neither overstock nor run out of popular items.

Marketing Campaigns

Stores can time their marketing campaigns to coincide with predicted high footfall periods.



Interested in Harnessing the Power of Neural Networks?

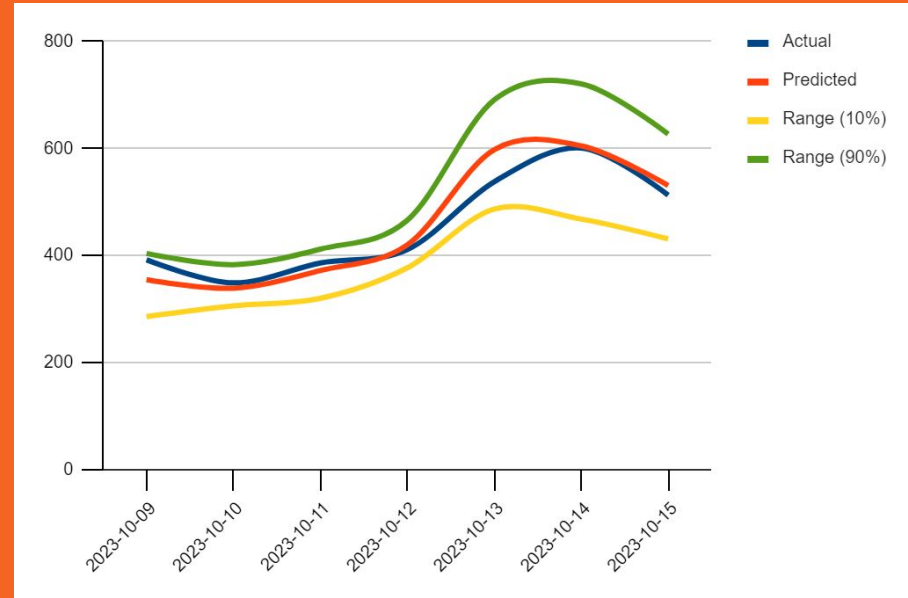
At Retail Sensing, we're at the forefront of integrating neural networks into footfall prediction. Our advanced solutions are tailored to meet the unique needs of every retailer, ensuring accurate, actionable insights. Whether you're a small boutique or a large chain, we have the expertise to elevate your retail strategy to the next level.

For further information or to explore how we can collaborate, get in touch with us at Retail Sensing today.



Real Predictions: KFC

Date	Actual	Predicted	Range (10%)	Range (90%)
2023-10-09	392	355	286	404
2023-10-10	349	339	306	383
2023-10-11	386	372	320	412
2023-10-12	411	420	377	466
2023-10-13	538	598	487	691
2023-10-14	601	605	468	721
2023-10-15	513	531	431	627



Real Predictions: Mahon Point Retail

Date	Actual	Median forecast	from (10%)	to (90%)
2023-10-16	2338	2446	2245	2672
2023-10-17	1965	2382	2179	2565
2023-10-18	1485	2473	2291	2623
2023-10-19	2539	2646	2438	2821
2023-10-20	2697	2774	2491	2993
2023-10-21	4039	3416	3119	3668
2023-10-22	3852	3208	2804	3677

