

A vertical photograph showing a multi-level shopping mall. The mall has a glass roof and walkways on different levels. People are seen walking on the ground floor and sitting at tables on an upper level. The architecture is modern with a grid-like structure.

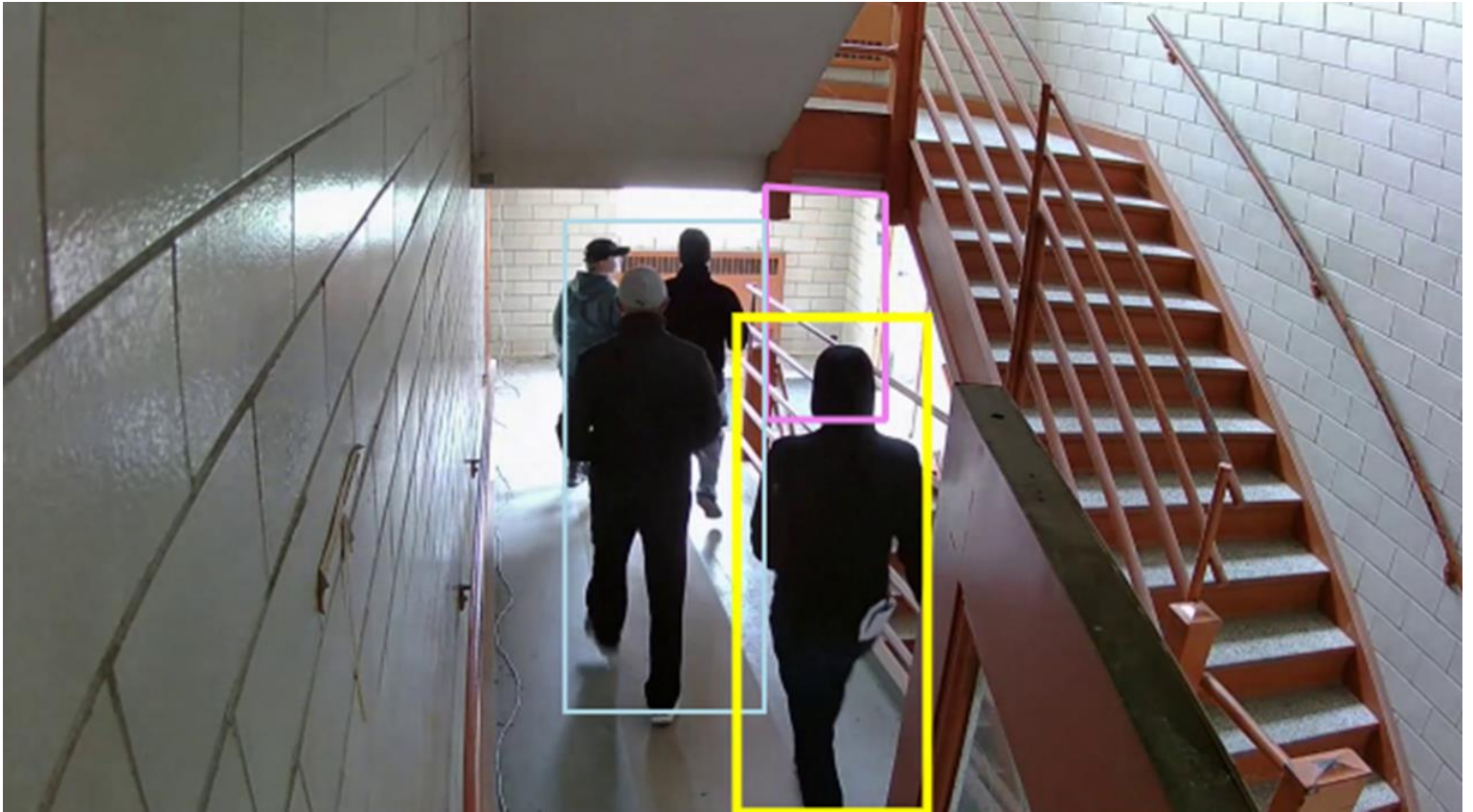
Analyzing foot traffic using computer vision at the edge

CHALLENGES

The customer wanted to analyze the foot traffic entering or exiting a designated area for retail and safety scenarios. They wanted to receive immediate alerts when higher-than-expected foot traffic occurs in specific zones to provide a safer and smarter way for shoppers during critical situations like COVID-19. Also, the customer needed real-time statistics of foot traffic to maintain safety guidelines.

SOLUTIONS

Neal Analytics leveraged the OpenCV visual AI model for people detection at the entry and exit points. The user was able to define zones before entering, which helped in foot traffic analysis. We deployed Edge on Azure Brainbox hardware, which provided real-time statistics of foot traffic and automated deployment of hardware and software.



RESULTS

Neal Analytics' solution allowed real-time people detection view and statistics for the customer. It enabled locations to calculate the total number of people coming in and out from a particular zone. The total real-time occupancy calculation helped them match the current safety guidelines (e.g., COVID). The historical trend analysis helped the customer understand past patterns of foot traffic to take preventive measures and allow for adequate space and social distancing. Using Neal's solution, the customer could aggregate the multi-site data for advanced analytics.