SQUARESHIFT

US Government Agency wanted to automate manual verfication process for building plans

24%
Reduction is total building plan review effort

7 Hours to 70 minutes
Decrease in time spent by teams to verify building plans

22
Important criteria automated

CLIENT

The client is the government of the USA that approves and verifies new building plans.

They employ over 8000 people across the USA.

AT-A-GLANCE

Challenges

The client was reviewing building plans manually and verified if it's as per defined norms.

They needed a solution that could help them reduce manual verification and automate the review process.

Solution

- SquareShift built an application that scans building plans as input and used computer vision to extract specs.

- We also built rules engines to compare data and provided it in a dashboard to view the final report

PROJECT CONTEXT

The client was reviewing building plans manually and verified if it's as per defined norms. They needed a solution that could help them reduce manual verification and automate the review process.

PROJECT OBJECTIVES

- Reduce the building plan review efforts
- Automate the manual verification process and keep it as per norms

SOLUTION DELIVERY

- SquareShift built an application that could scan and extract data using computer vision with just the image one could identify the exact locations in a building.
- Used Computer Vision & ML to extract plan specs and generate key insights.
- SquareShift built a rules engine to compare specs with master specifications and verify the specifications.
- Built and sent notifications so that reviewer can see the summary of all the elements in the building plan that meets specification.
- SquareShift also provided a dashboard with the final review report.

TECHNOLOGY STACK

PyTorch | python | Amazon S3 | Amazon Glue