



Site Safety Assitant App: The Big Brother of Safety

By
Jaco Lau, Data Scientist



Problem Statement

Problem: How to minimize paperwork while maximizing job-site safety and productivity?

Why it needs to be addressed: With thousands of job-site injuries and fatalities every year general contractors are forced to be on the cutting edge of job-site safety.

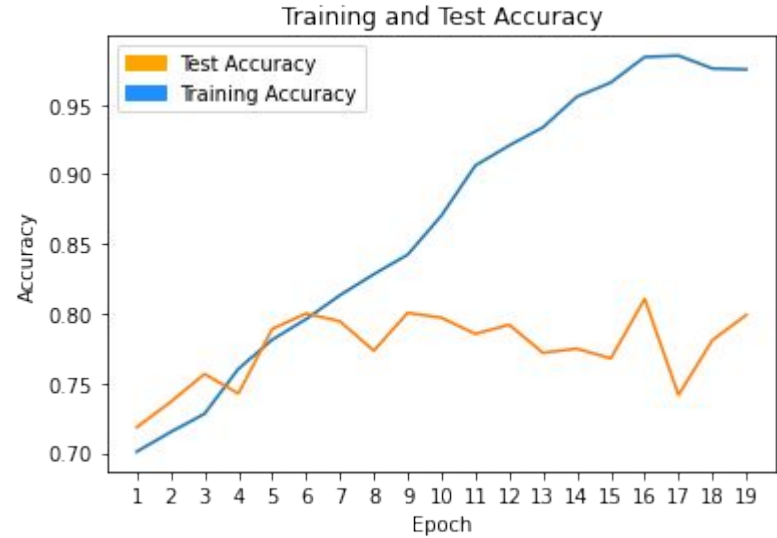
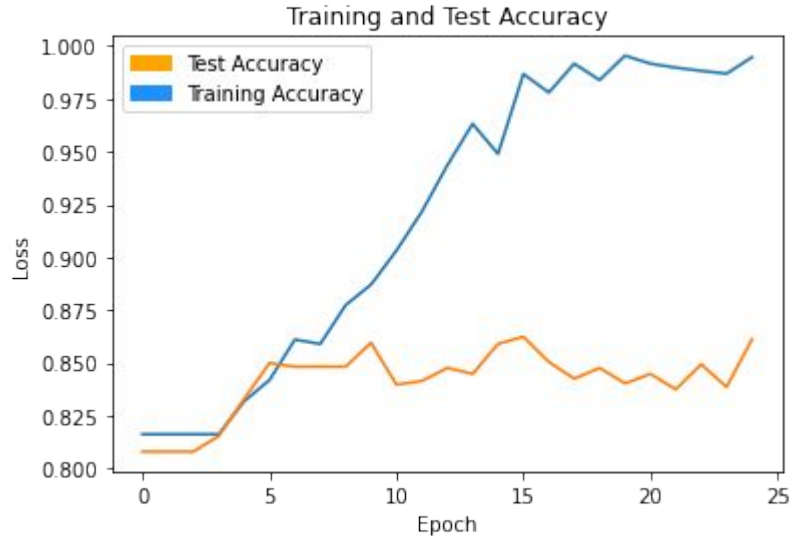
Proposed Solution: Site Safety App will help automate job site safety and minimize the amount of paperwork that the superintendent has to complete.



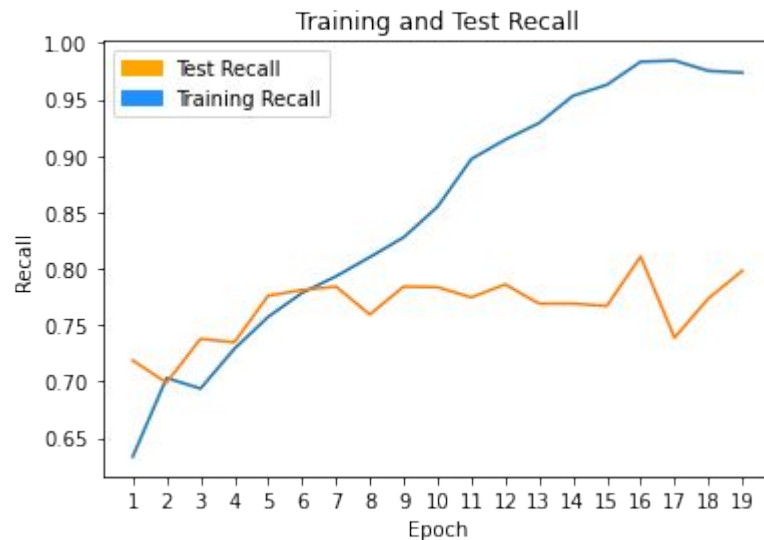
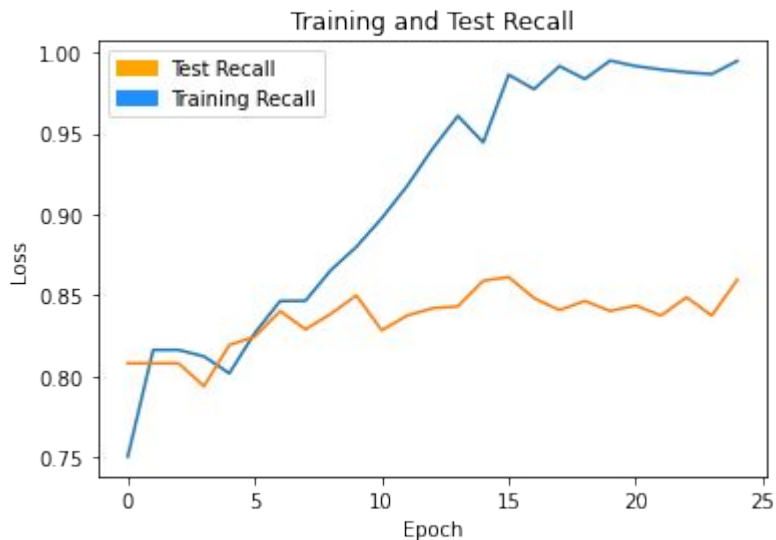
Methodology

- Collect Data
- Annotate images
- Model on a Virtual Machine
- Create App

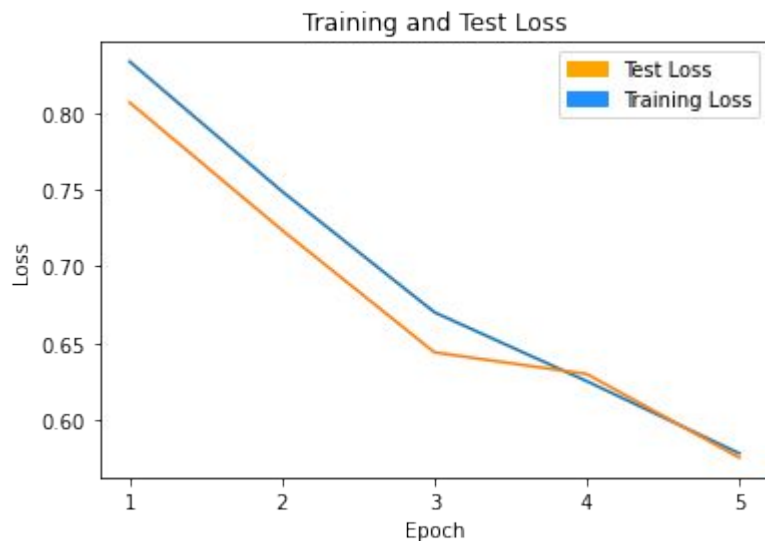
Modeling Challenges: Accuracy



Modeling Challenges: Recall



Final Model: Metrics





Final Model: Recall

80.1%

Training*

79.3%

Test*



Conclusion

Why should you partner with us:

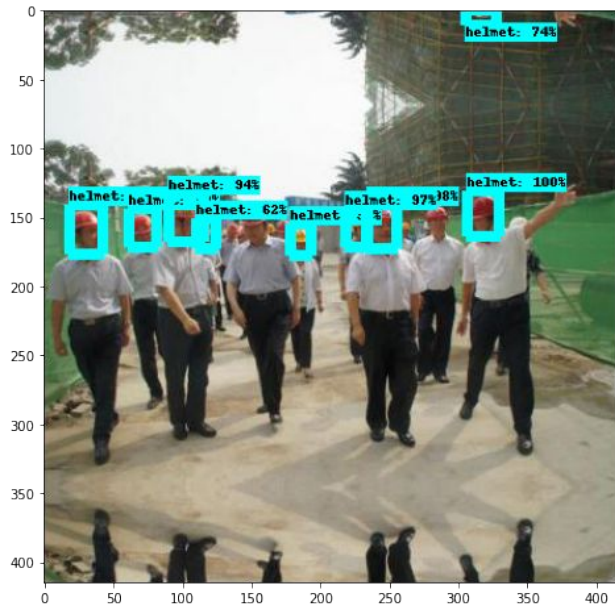
- 1) An application that has universal use throughout the construction industry
- 2) Over 100 years of experience and data



Vision for the Future:

- 1) More data = more violation detection
- 2) Real-time violation detection

Application in the Future



Application in the Future

