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DEPLOYING AI: LESSONS LEARNED FROM SELF-DRIVING CARS

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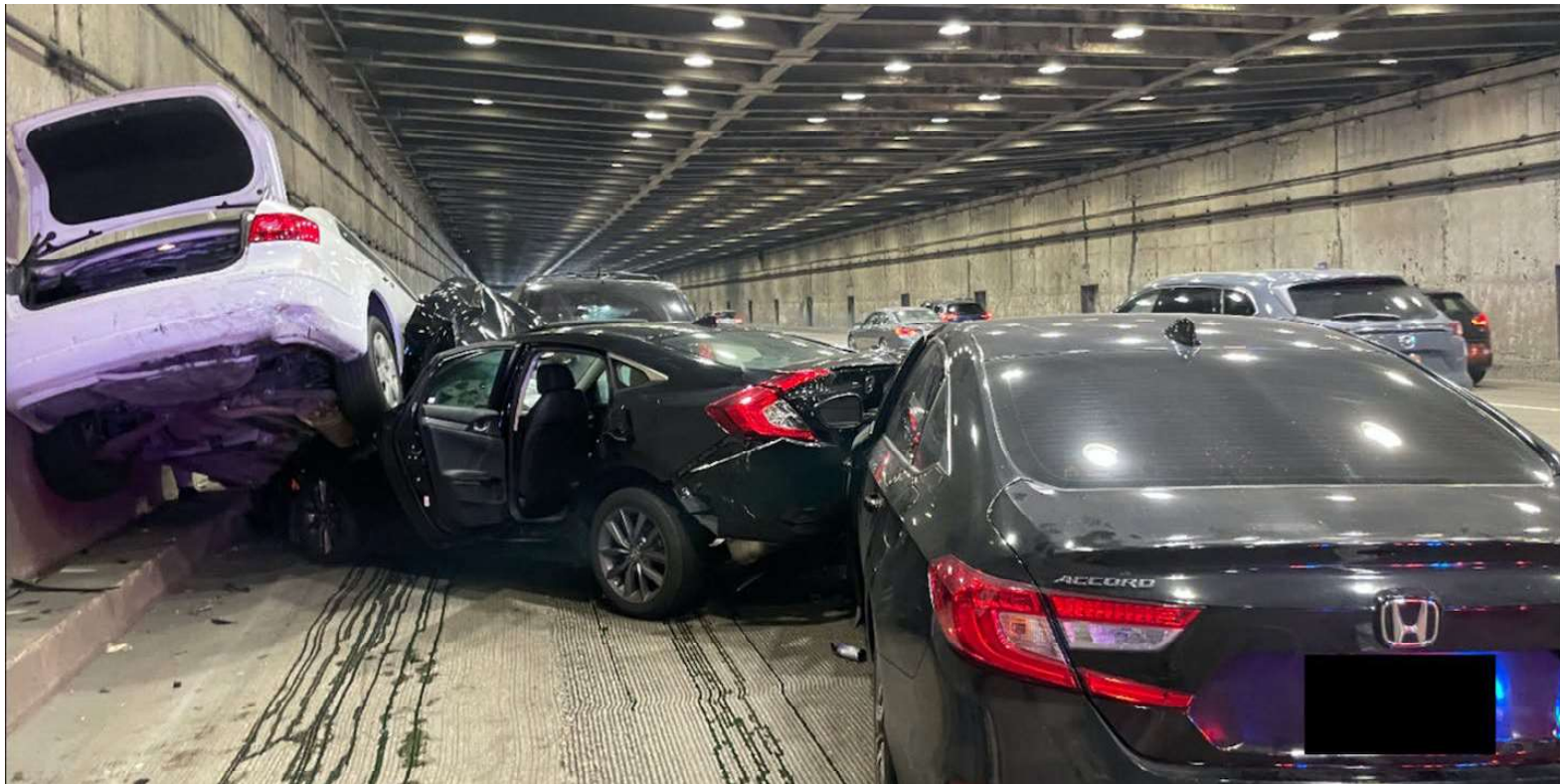
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5 lessons learned for deployments of any kind of algorithmic decision maker

- Human errors in operation get replaced with human errors in coding
- Failure modes can be surprising
- Probabilistic estimates do not approximate judgment under uncertainty
- Maintaining AI is just as important as creating AI
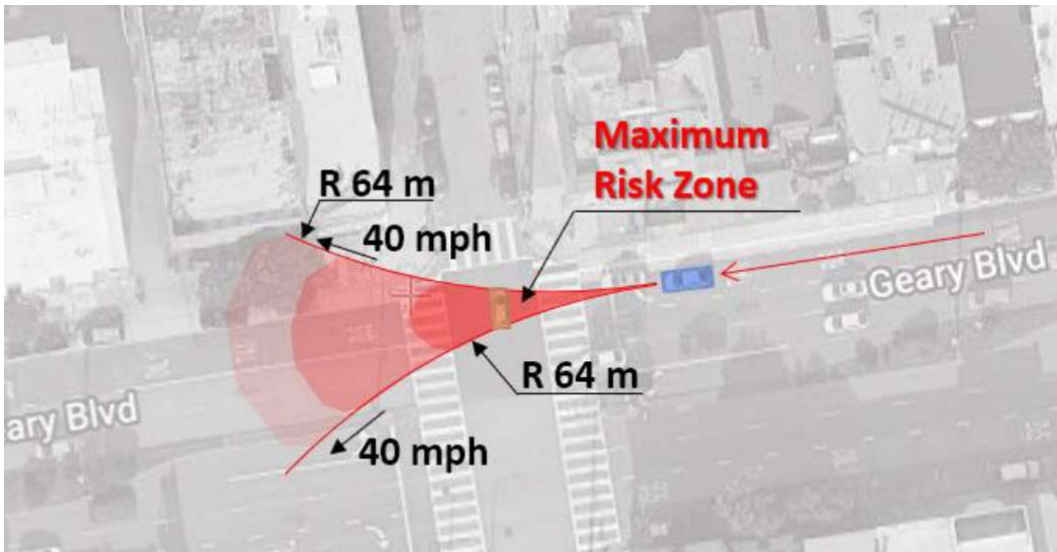- AI should be implemented with an understanding of system-level implications

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"The Cruise AV had to decide between two different risk scenarios and chose the one with the least potential for a serious collision."
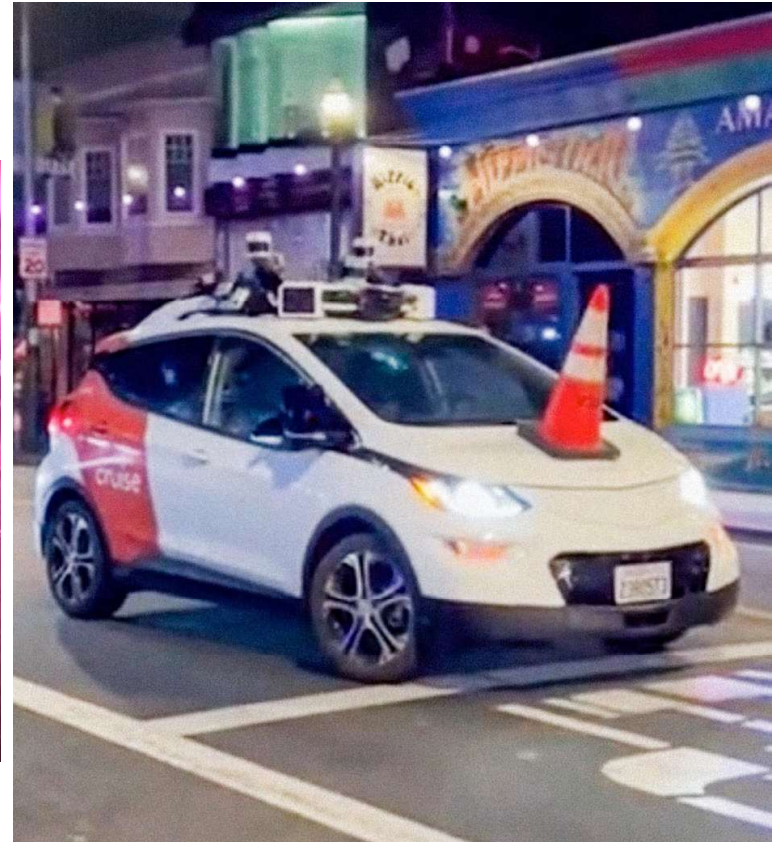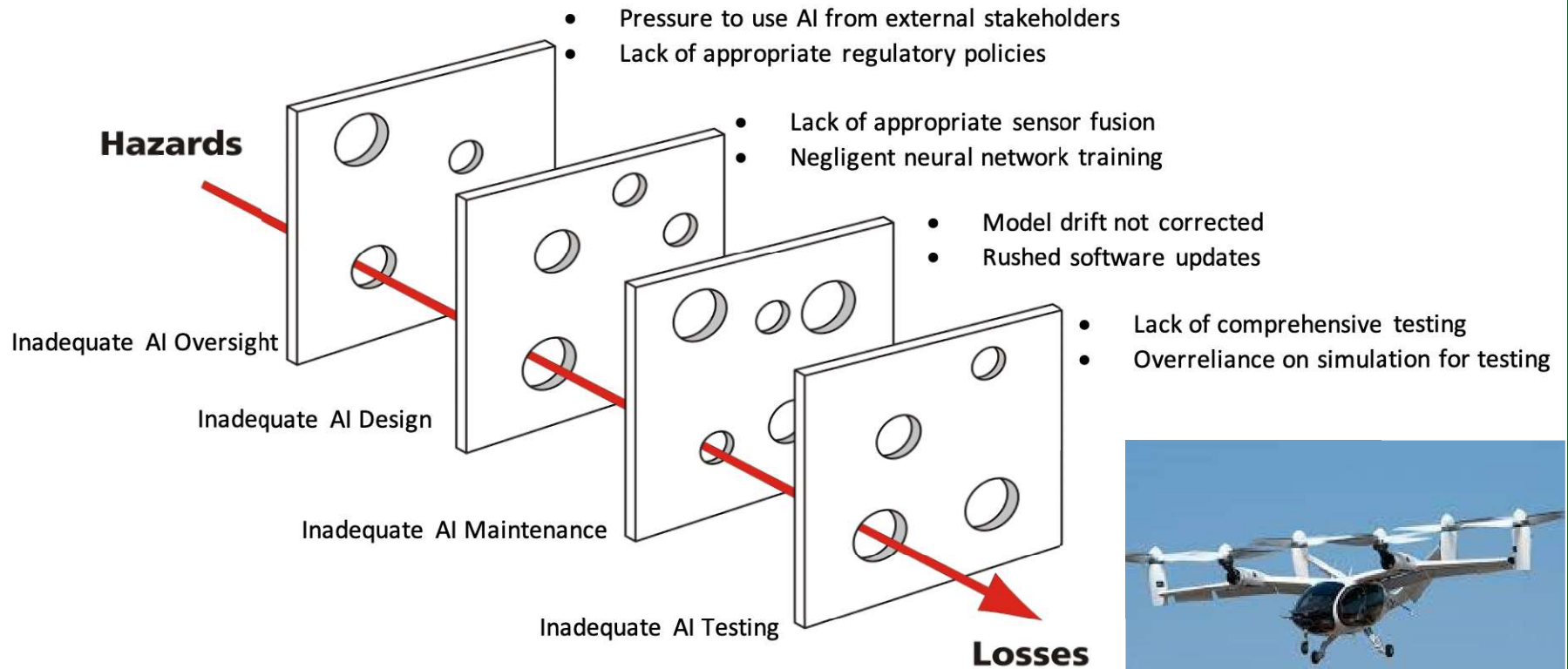
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AI should be implemented with an understanding of system-level implications

AI & Hazard Analysis

Hazards

- Pressure to use AI from external stakeholders
- Lack of appropriate regulatory policies

- Lack of appropriate sensor fusion
- Negligent neural network training

- Model drift not corrected
- Rushed software updates

- Lack of comprehensive testing
- Overreliance on simulation for testing

Inadequate AI Oversight

Inadequate AI Design

Inadequate AI Maintenance

Inadequate AI Testing

Losses

Questions?