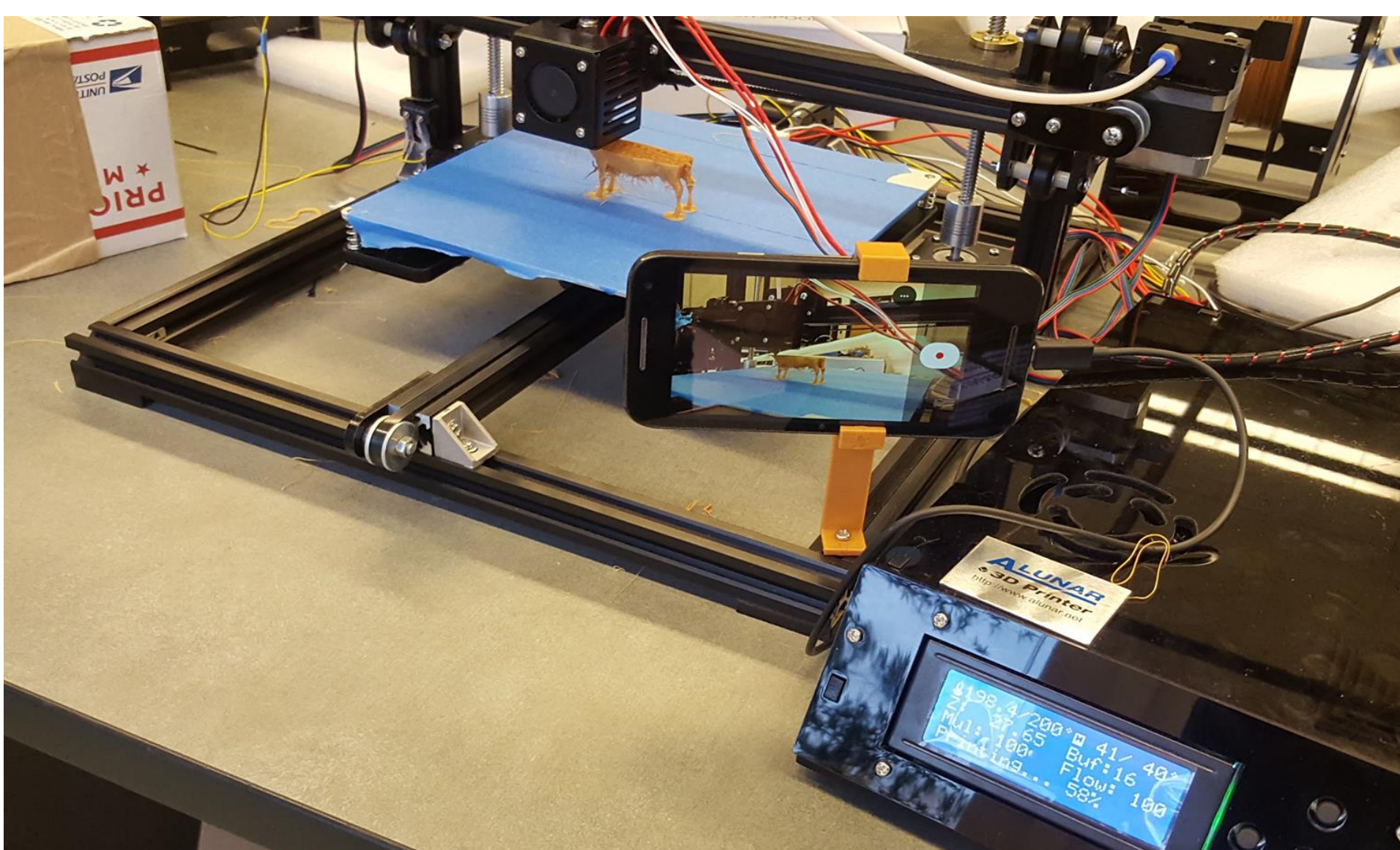


USING COMPUTER VISION TO DETECT FAILED 3D PRINTS

Motivation

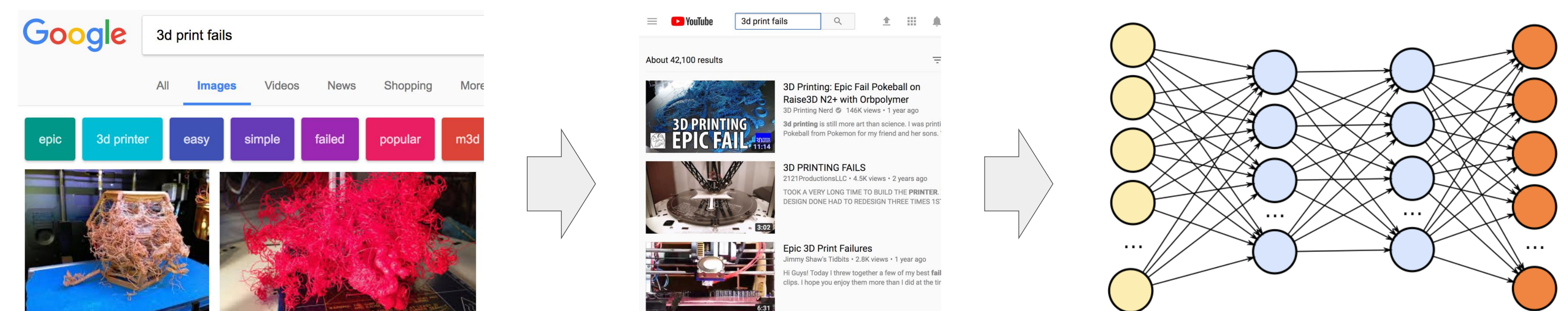


Evaluation



Testing Dataset	Accuracy	MCC
Static Images	90.0%	53.3%
Balanced Video	77.0%	50.0%
Raw Video	84.9%	58.7%

Training



- Darknet reference net
- Pre-train on images from Google
- Train on Youtube + our printers

Future Work

- Automatically take corrective action (e.g., shut off printer, notify user)
- Collect additional training data
- Consider alternate approaches to data collection or computer vision

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