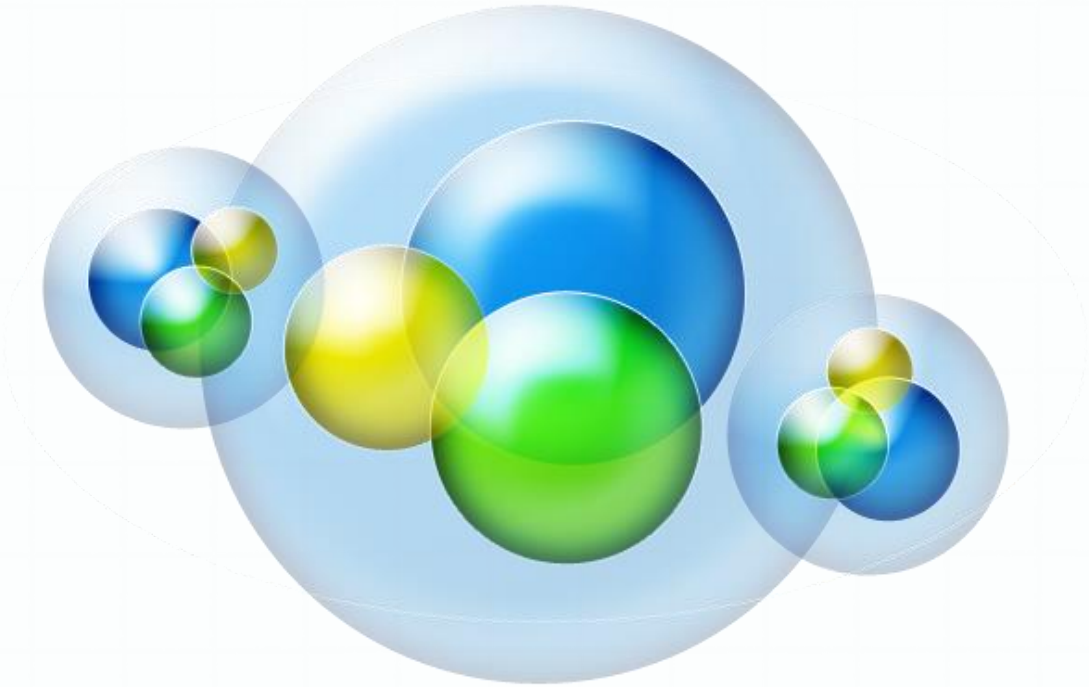


Google GCP and AI

Perth .Net Users Group

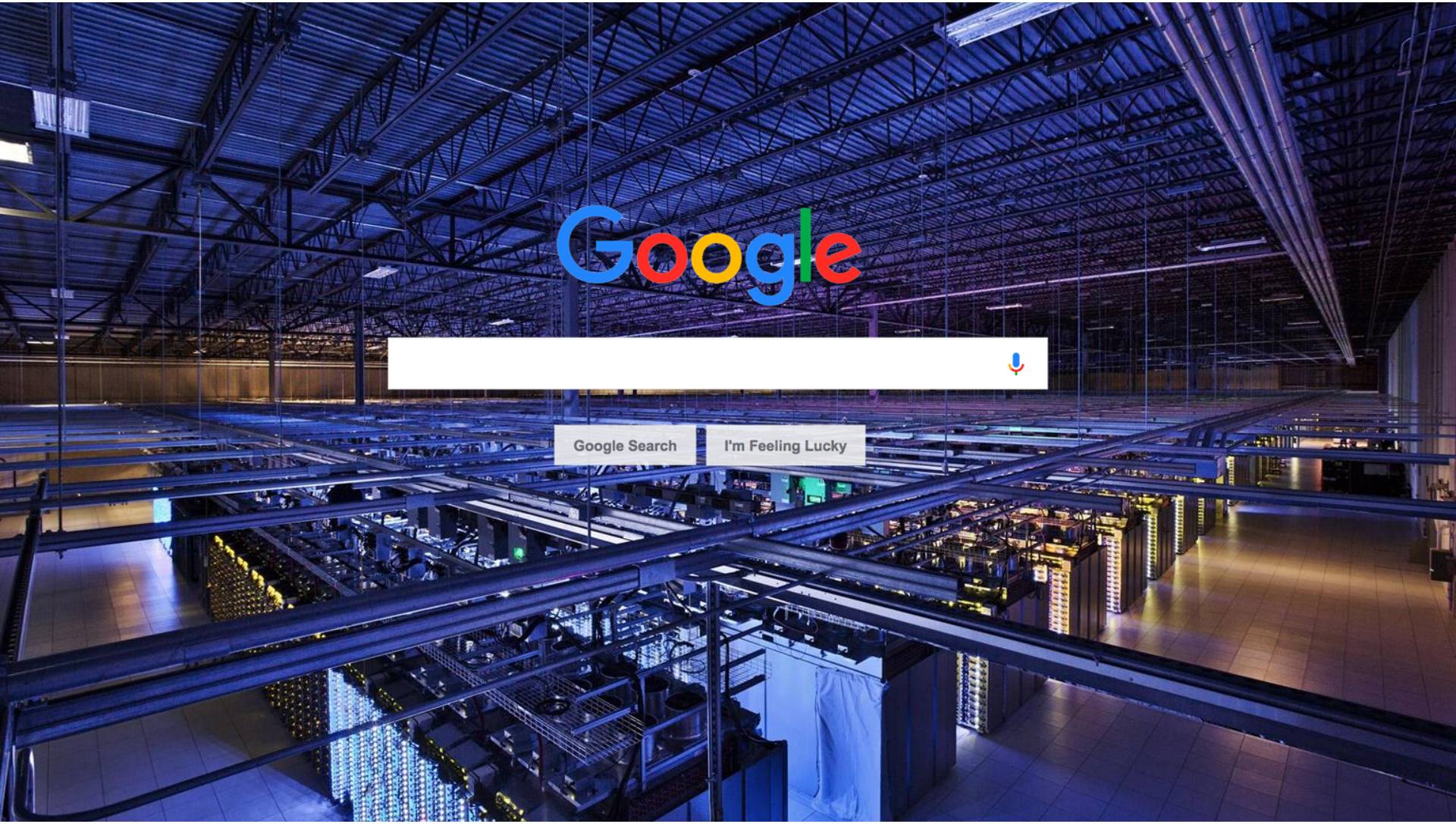
18th December 2018

Agenda

- What is Google Cloud Platform?
- Why focus on AI and some of the basics
- I’m a developer, get me out of here!
- Demo application
- Lessons Learned

Organize the world's information and make it universally accessible and useful

Google Search I'm Feeling Lucky


Google
Google Search
I'm Feeling Lucky

Seven cloud products

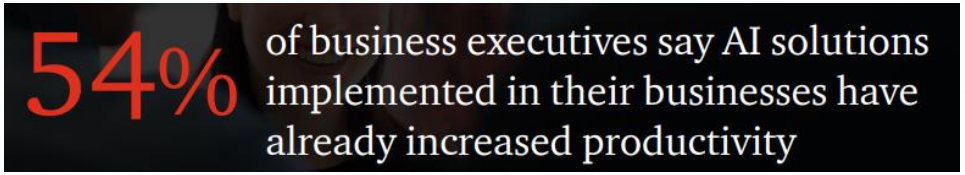
With one billion users each

Google Cloud

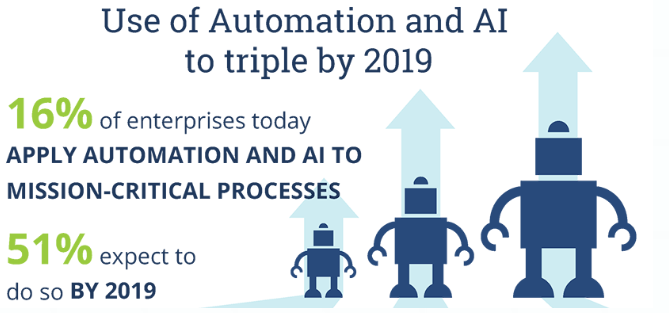
Google Cloud Platform

Use best of Google's innovation to solve the problems that matter most to you

Why focus on AI?



(PwC Consumer Series 2017)



(ISG 2018)

- High adoption expected.
- "No brain, no gain"
  - Two-thirds of companies struggle with finding and acquiring AI talent
  - 83% struggle with retention.
- One solution (Hire.google.com) is using AI to find AI developers.
- To help bridge the gap, cloud suppliers are providing "pre-trained" models.

The basic AI Concept

- In 1905 George Santayana a philosopher said, “Those who cannot remember the past are condemned to repeat it”
- In 1980 Dr. Carl Sagan a cosmologist said, “You have to know the past to understand the present.”
- In 2012 Robert T Kiyosaki an accountant said, “The best way to predict the future is to study the past, or prognosticate.”
- AI model training is all about analyzing the past to predict the future.

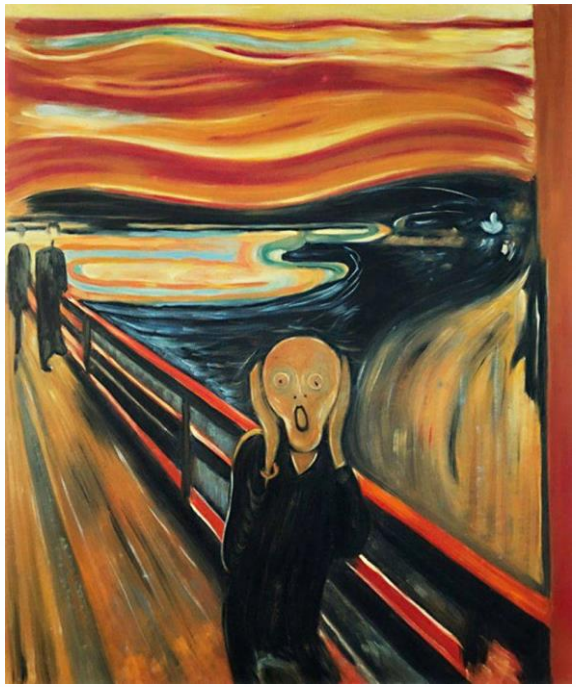
- Neural Nets are not simple. Tools mainly are designed for data scientist by data scientist.
- For Dev there are a few out of the box APIs
  - Vision API (Label, extract Text, Web search)
  - Video API (extract metadata)
  - Translation
  - Text-to-Speech
  - Natural Language (extract intent, main use is for Bots)
- As always, it's not long before you get to the last 10% for functionality that takes 90% of the effort.

Landmark Example

- **Landmarks – Where is this?**

Label Example

- Label – what description would you give?



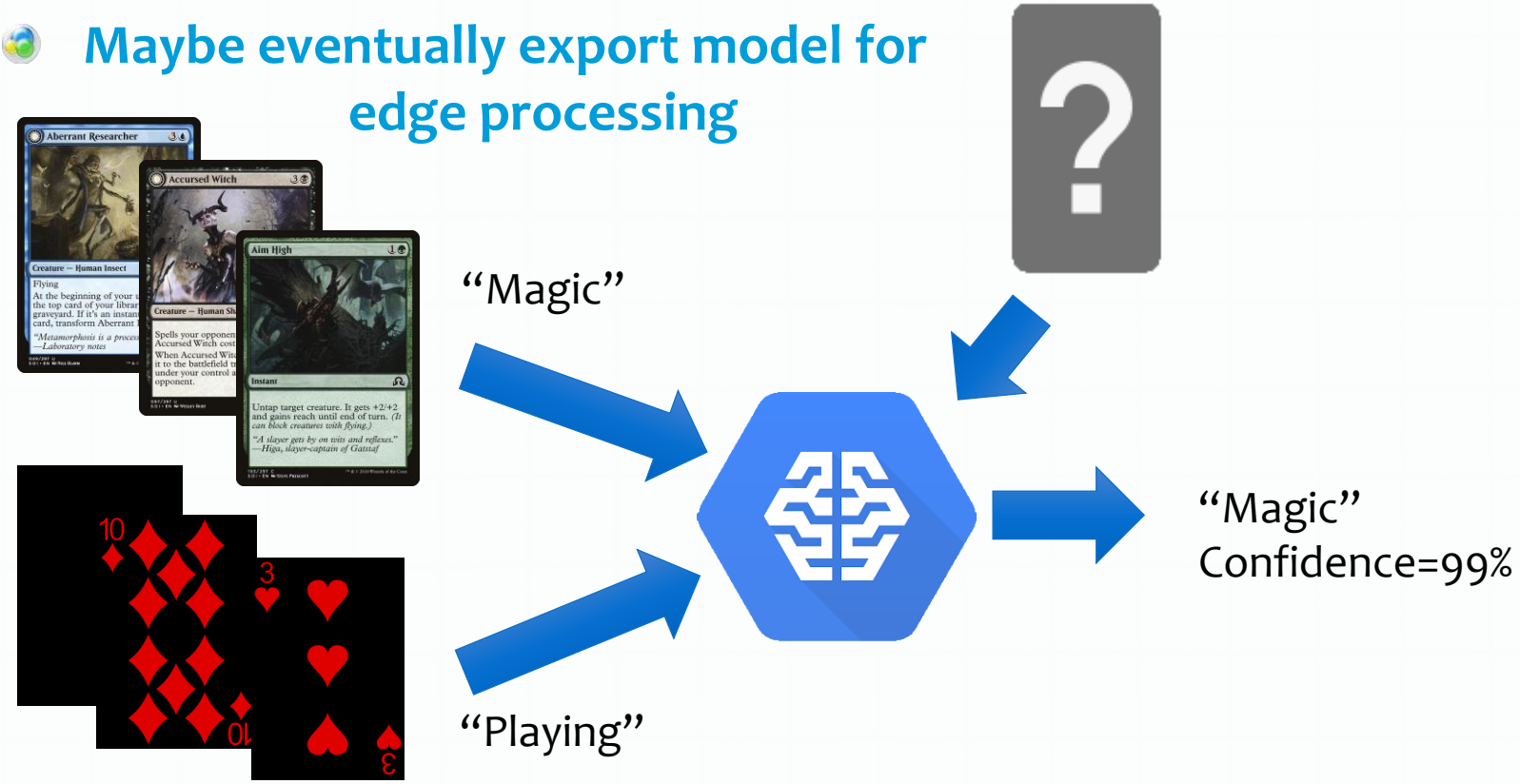
Text/OCR Examples

- Text

PRODUCT DEMO
NEXT EXIT

Finally AutoML

- Great option for custom labels
  - Allows training
  - With as few as 100 images
  - Maybe eventually export model for edge processing



Deploy the App to GCP!

Questions

- Code and images available on GitHub

  https://github.com/rgreene-public-repos/google-card-vision

  Presentation in GitHub repository