# Predictive Intelligence using Al Builder •

### Anupama Natarajan

Data & Al Consultant | Al Builder | Pearl Innovations, New Zealand







# Anupama Natarajan

# Data and AI Consultant Pearl Innovations

- in /anupamanatarajan
- @shantha05
- <u>anupama@pearlinnovations.co.nz</u>
- http://www.pearlinnovations.co.nz/blog www.anupamanatarajan.com



### 20+ years experience

Design and Develop Data Warehouse, Business Intelligence, Web and AI enabled applications

### Microsoft MVP for Al

Passionate on data and ways of exposing and derive valuable information from data.

### **Trainer (MCT) and Speaker**

Train and share knowledge on Data Platform technologies using real world examples. Speaker at various conferences and user group events.

### **Organiser**

Organise SQLSaturday and user group events.



# SQL Saturday Wellington

Pre-Conference – 21st Feb 2020

Data Science using Data Bricks – Ginger Grant (MVP from United States)

Cost - \$300 NZD

9:00 a.m. – 4:00 p.m.
Whitireia New Zealand
3 Wi Neera Dr
Elsdon
Porirua, 5022









# SQL Saturday Wellington



**FREE** training event for Developers or any professional who use the Microsoft data platform.

- Data Platform Strategy, Architecture, Development, Maintenance and Performance Tuning
- SQL Server (on-premises & Azure)
- Data Science, Artificial Intelligence, Bots, Machine Learning and Internet of Things
- Business Intelligence, Analytics & Visualisation
- DevOps, PowerShell and Containers
- Infrastructure, Security & Deployment
- Women in Technology
- Professional Development
- Soft Skills

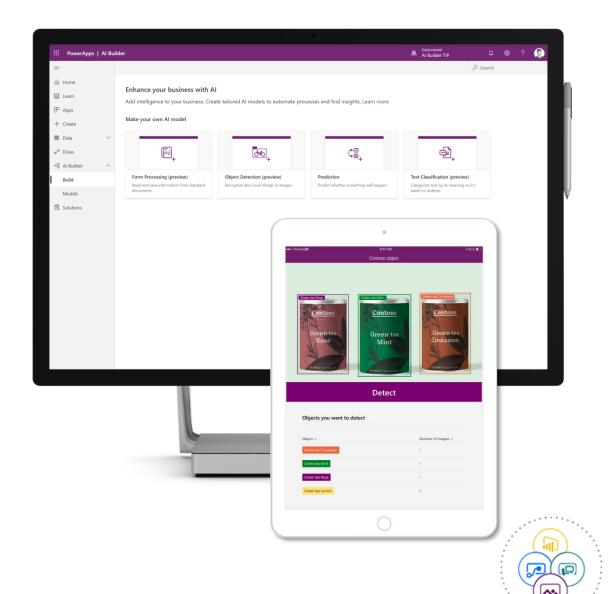






# Agenda

- Introducing Al Builder
- Prebuild models
- Custom models
- Add Intelligence to Apps
- Demo





## Power Platform



Power Bl Business analytics



Power Apps Application development



Power Automate
Workflow
automation

- Seamlessly connect your data for quick and easy analysis
- Convert insights into action with custom apps
- Automate timely and intelligent business processes





# **Power Platform**

# from insight → action



**Power BI**Business analytics





Figure 1. Magic Quadrant for Enterprise Low-Code Application Platforms





**Power Apps**Application development

Source: Gartner (August 2019)





# Al Builder • 🎖

A low-code AI capability that spans the Microsoft Power Platform, Dynamics 365, and Office 365

### Innovation anywhere. Unlocks value everywhere.



**Power BI**Business analytics



**Power Apps**Application development



Process automation



Power Virtual Agents
Intelligent virtual agents



Data connectors



**Al Builder** 

**Common Data Service** 





### Prebuilt models and Availability

### Business card reader (Power Automate and PowerApps)

Pull contact information from business cards, store this information in your database, and import it into your CRM system.

### Sentiment analysis (preview) (Power Automate)

Detect positive, negative, neutral and mixed sentiment in social media, customer reviews or any text data you want to analyze.

### Key phrase extraction (preview) (Power Automate)

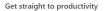
Extract the main points and key phrases in text documents.

### Language detection (preview) (Power Automate)

Use this model to identify the predominant language of a text document.

### Text recognition (preview) (Power Automate and PowerApps)

Extract embedded printed and handwritten text from documents and images into machine-readable character streams.





Key Phrase Extraction Language Detection (preview) (preview)

Extract the key talking points Identify the language being



Sentiment Analysis (preview)

Analyze positive/negative sentiment in text

Text Recognition (preview)

Automatically process text

### Get straight to productivity





Key Phrase Extraction Language Detection



Sentiment Analysis



Text Recognition





### Custom models and Availability

### Prediction

Use your database and this AI model to determine the likelihood of specific business outcomes.

### Form Processing (preview)

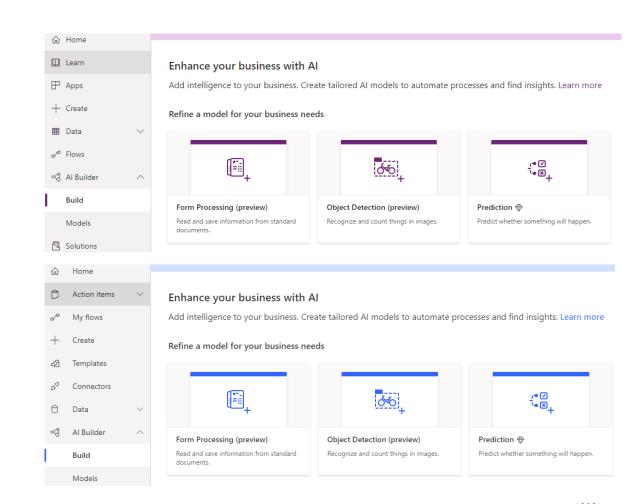
Read, extract, and process data from scans, emails, PDFs, and images.

### Object Detection (preview)

Build an Al model that recognizes and counts visual objects.

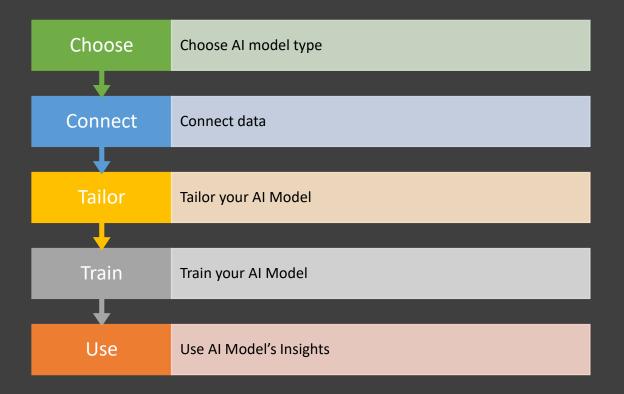
### Text Classification (preview)

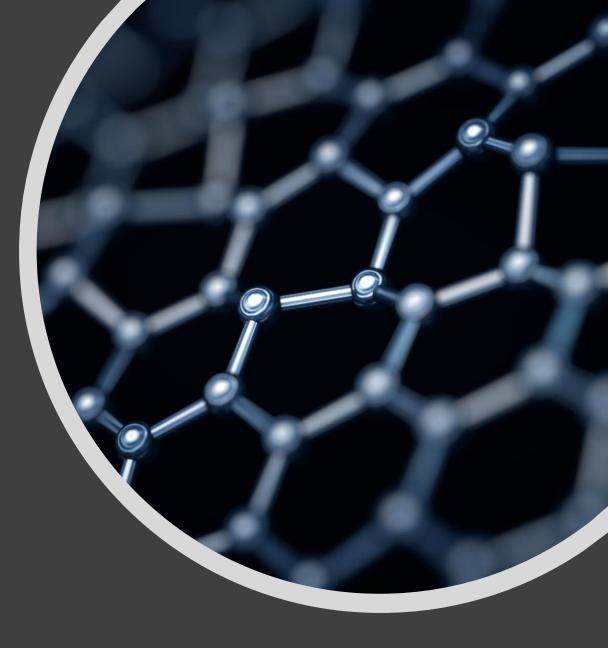
Build an application that reviews, tags, and classifies large volumes of text to track sentiment, improve customer experiences, and mine valuable insights.





# Add Intelligence to Apps





# Scenario: Invoice processing with Approvals



This is a common payment scenario for many organizations. An invoice with a balance due is received in email. If the amount is above a certain value, it must go through the next level of approval.



This would have previously been a manual process. Instead with Al Builder Forms processing and Power Automate Approvals, it can be completely automated within minutes. The approval can be performed with adaptive cards in Teams. Then, using Ul flows, the invoice can be added to a legacy invoice processing app that does not expose any APIs





# Form Processing Al Model Requirements



JPG, PNG, or PDF format



Must not exceed 4 MB and should not be more than 50 pages for PDF documents



For images, dimensions must be between 530 x 100 and 4200 x 4200 pixels.



If scanned from paper documents, scans should be high-quality images



Must contain keys and values



Keys can appear above or to the left of the values, but not below or to the right

# Optimization Tips

Complex tables (nested tables, merged headers or cells, and so on)

Check boxes or radio buttons

PDF documents longer than 50 pages

Fillable PDFs

# Demo

Form Processing Model with PowerApps and PowerAutomate

From

Wingtip Toys 34 5th St NV 98052

NY 98052 http://wingtiptoys.com/ 555-525

Bill To

Proseware, Inc. 654 11st St NY 98052

http://www.proseware.com/ 555-475 **INVOICE** 

085236

Jan 11, 2019

Due Date: May 12, 2019

Balance due: \$ 1013.50

Date:

Item	Quantity	Rate	Amount
Yellow truck DF34	24	\$ 17.00	\$ 408.00
Space shuttle 324OL	15	\$ 21.00	\$ 315.00
Puzzle for princess	15	\$ 16.80	\$ 252.00

 Subtotal:
 \$ 975.00

 Tax (2%):
 \$ 19.5

 Shipping:
 \$ 19.0

 Total:
 \$ 1013.50





# Thank you

