Generating Complex Melodies on the Edge TPU
Introduction

• On-device inferencing capabilities allow user to build products that are efficient, private, fast and offline.

The picture is taken from [https://coral.ai/](https://coral.ai/)
Motivation

• Deploy a music model on the Dev Board
  – Gain understanding of the frontiers of on-device intelligence e.g. Google Glasses
  – Exploring business use
Background

• Coral Dev board
  – Single-board compute, Edge TPU coprocessor

• Recurrent Neutral Network model
  – TensorFlow Lite Format
Edge TPU

Google’s purpose-built ASIC designed to run inference at the edge.
TensorFlow Lite Format

*Latency*: there's no round-trip to a server
*Privacy*: no data needs to leave the device
*Connectivity*: an Internet connection isn't required
*Power consumption*: network connections are power hungry
Get started with the Dev Board

• Flash the board
• Connect to the board shell via MDT
• Connect to the internet
• Run a model using TensorFlow Lite API
Evaluation

• Human-centered
  – Inference and play music on the board
Application

• Explore the business use of the Dev Board with RNN model
## Arrangements

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Question

• Thank you for listening!
• Any questions?