Qualcomm Developer Project Text Classification demo

Project Submission

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| **Project Title**\* | Text Classification | |
| **Images**  *Upload up to 5 images of your project*  *Please submit/send the original JPEG/PNG files for all images included in the document* | **Qualcomm® CM2290**  IMG_256  [Alt tag: “BERT QA-demo using The Qualcomm® CM2290 SOC Open Kit”]  **Type-c usb line**   |  | | --- | | **typc** |   [Alt tag: “using the USB line to develop on Qualcomm® CM2290 SOC Open Kit” ]    **Charger**  charger  [Alt tag: “using round-hole charger to power Qualcomm® CM2290 SOC Open Kit”] | |
| **Description**\*  *High level description of the project* ***(75 words or less)*** | The project builds and runs the source code of the cm2290 development kit system on the cm2290 development board, making full use of the diversity of the development kit and its powerful connectivity and computing capabilities. It was created using the pre-training text classification model fine-tuned on the SQUAD 1.1 dataset.  This model takes a paragraph as input, and then uses TensorFlow Lite model to classify the paragraph into predefined groups to predict whether the emotion of the paragraph is positive or negative. It is trained on the Large Movie Review Dataset v1.0 provided by Mass et al. | |
| **Objective**   * *What inspired you to create this project?* * *What is your desired outcome?* | The CM2290 development board can be used for text classification processing. Through the matching and training model, it can quickly analyze whether the emotional expression of the input movie comments is positive or negative. There will be a statistical percentage. | |
| **Materials Required / Parts List / Tools** | Part Name | Link to purchase |
| Qualcomm® CM2290 SOC Open Kit | https://www.thundercomm.com/zh/product/cm2290-c2290-development-kit |
| USB Line | https://item.jd.com/40759941966.html |
| Charger |  |
| OVA3 camera |  |
| **Source Code / Source Examples / Application Executable**  *Link to open source / shareable code repository* | Description | Link |
| Source Code | https://github.com/ThunderSoft-XA/CM2290-Text Classification-demo |
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| **Additional Resources**  *List related links or resources such as websites, videos, presentations, or other materials* | Resource Title | Link or File Name (and provide file) |
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| **Build / Assembly Instructions** | Sample outline:   1. Compile the project. 2. Enter the content of the article according to the prompts on the page. 3. Enter the problem to be solved. 4. Display the time consuming after processing and highlight the results in the article. | |
|  | Sample outline:   1. How does it work?   Text classification categorizes a paragraph into predefined groups based on its content.  This pretrained model predicts if a paragraph's sentiment is positive or negative. It was trained on [Large Movie Review Dataset v1.0](http://ai.stanford.edu/~amaas/data/sentiment/) from Mass et al, which consists of IMDB movie reviews labeled as either positive or negative.  Here are the steps to classify a paragraph with the model:  Tokenize the paragraph and convert it to a list of word ids using a predefined vocabulary.  Feed the list to the TensorFlow Lite model.  Get the probability of the paragraph being positive or negative from the model outputs. | |
| **Usage Instructions** | The Demo running results are as follows：  final result:  Screenshot_20230315_151601Screenshot_20230315_151828 | |
| **Contributor(s) Info**  *Feel free to include headshots!* | Name | Title  Company |
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Filters and Tags for QDN projects page

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| **Platform/Hardware** | CSR 101x/102x Bluetooth  DragonBoard 410c  mangOH Red/Yellow  √ Qualcomm CM2290 | MDM920x LTE for IoT  QCA-402x WiFi/BLE/Zigbee  Qualcomm Robotics RBx Dev Kit |
| **Software Tools** | 3D Audio Plugin for Unity  Adreno GPU SDK  Hexagon DSP SDK | √ Neural Processing SDK for AI  　Snapdragon Profiler |
| **Operating System** | √ Android  Linux  ThreadX RTOS | Ubuntu Core  Windows 10 IoT Core |
| **Cloud Services/Platform** | Sierra Wireless AirVantage  Gizwits Cloud Platform  AT&T M2X  IBM Bluemix | IBM Watson IoT  Microsoft Azure IoT  Amazon AWS IoT |
| **Skill Level Required** | Advanced  Beginner  √ Intermediate |  |
| **Areas of Focus** | 3D Printing & Modeling  Alexa Voice Service  Artificial Intelligence  Bluetooth  Computer Vision  Digital Signage  Education  √ Embedded  Gaming | Healthcare  IoT  Robotics  Security  Sensors  Smart Cities  Smart Home  Toys |

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