Qualcomm Developer Project Bert QA-demo

Project Submission

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| **Project Title**\* | BERT Question and Answer | |
| **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 diverse and powerful connectivity and computing capabilities of the development kit. It was created using the pre-training BERT model fine-tuned on the SQUAD 1.1 dataset,  The model takes a passage and a question as input, and then returns the passage that is most likely to answer the question. It requires semi-complex preprocessing, tokenization and post-processing steps implemented in the sample application | |
| **Objective**   * *What inspired you to create this project?* * *What is your desired outcome?* | CM2290 development board can be used for language processing  , quickly get the answers to the questions you want from an article. After using the Bert model, highlight the answers to the questions from the input document. | |
| **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-Bert-QA-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?   The model can be used to build a system that can answer users’ questions in natural language. It was created using a pre-trained BERT model fine-tuned on SQuAD 1.1 dataset.  The model takes a passage and a question as input, then returns a segment of the passage that most likely answers the question. It requires semi-complex pre-processing including tokenization and post-processing steps that are described in the BERT paper and implemented in the sample app. | |
| **Usage Instructions** | The Demo running results are as follows：  final result:  AB | |
| **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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