Understanding & Testing of Tensor Processing Units [TPUs] Using Ruby/mruby/QRNG/ AI/LLVM/MongoDB [MDB-rb]/DICOM-rb + its Related Tools w.r.t Medical Imaging **R&D** based on Tensor Flow-ruby [TF-rb] + Smart Devices/RASP PI/Bosch-XDK-IoT **+ HPC Heterogeneous Systems** **-> A Simple Suggestion on Designing Novel HPC-TPU TESTBED Architecture.**

[**Exploring -> Ruby-TF-ONNX/[RoR1-Ruby on Rails]/Kubernetes/[RoR2-Resnet of Resnet]/[ResNet in ResNet(RiR)]**]

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[I] Main Idea + Inspiration + Introduction :

Towards TPU based AI Adventures w.r.t Ruby based Next Generation Medical Image Processing & Intelligent Informatics.

*"*Tensor Processing Unit (TPU) is an AI accelerator application-specific integrated circuit (ASIC) developed by Google specifically for neural network machine learning, particularly using Google's own TensorFlow software. [1] Google began using TPUs internally in 2015, and in 2018 made them available for third party use,both as part of its cloud infrastructure and by offering a smaller version of the chip for sale."

[Source - https://en.wikipedia.org/w/index.php?title=Tensor_Processing_Unit&oldid=1038339337]

Metaprogramming in Ruby -> "The impressive dynamic nature of Ruby grants you the freedom to define methods and classes during run-time, and this is known as metaprogramming. By metaprogramming with Ruby, you have the ability to ask your code questions about itself during run-time,allowing you to accomplish tasks in a fraction of the time it may take to do the same task in another language." -> Quinton LaBorde.

[Source - https://levelup.gitconnected.com/metaprogramming-in-ruby-df797b2f784f]

[II] R&D Informatics Framework Using Ruby & its Related Tools for TPU based Applications :

Please generate your own R&D Frameworks based on your algorithms.Please fine tune our algorithm/s from **ref[b]***

Testing in progress @ the TIME of Submission.We are trying to see some promising results.So,keep going.....>>>>>>>>>

[III] Important & Useful References for your Information :

[a] https://github.com/tejdnk-2019-ShortNotes - lot of examples - please read and proceed.Thanks.

[b] https://github.com/tejdnk-2019-ShortNotes/2021-Nir-Informatics/blob/main/AVNET-U96-Ruby-Nir-21.pdf*

[IV] Acknowledgment/s :

Sincere Thanks to all WHO made this happen in my LIFE. Non-Profit R&D. Inspire Others Always.

[V] Conclusion/s With Future Perspectives :

"Ruby is for HUMANS not MACHINES " according to Matz. One of the pioneering R&D Efforts with a high level of promise. Keep hacking to develop next generation systems.Thanks for encouraging us always.Hope many more technical communications will follow based on our Short Technical Notes.Ruby is highly useful for rapid prototyping of R&D ideas/Algorithms etc...

[THE END]