XFOR Programming Tools + GCCS + KOKA Programming Language to Understand Polyhedral Compilation Techniques w.r.t Machine Learning Algorithms -> Space + Medicine + Telecoms + HPC Heterogeneous Systems R&D Domains - A Suggestion & Simple Technical Notes.

Nirmal - Informatics R&D Collaborator - USA/UK/France/Germany/Israel/BRICS Group of Nations.
Independent Consultant - Informatics/Photonics/Nanotechnology R&D.
Current Member - ante Inst UTD Dallas TX USA.
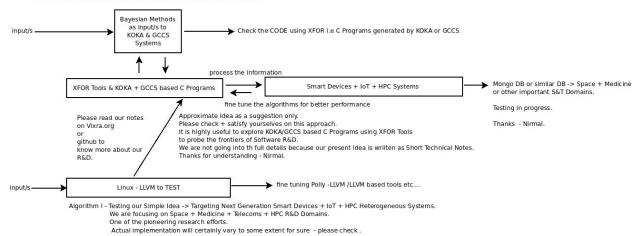Contact_info - hmfg2014@gmail.com

[I] Main Idea + Inspiration + Introduction :

Exploring Bayesian Inference Using GCCS + KOKA + XFOR Programming Algorithms targeting Space + Medicine + Telecoms or other important S&T Domains.

Please read our online technical notes on GitHub : **Please check our references mentioned below for your information.**

[II] R&D Informatics Framework Using GCCS + KOKA + XFOR Programming Concepts :

SIMPLE IDEA TO PERFORM R&D IN THE DESIGN OF NEXT GENERATION SOFTWARE TO PROBE SMART DEVICES + IoT + HPC HETEROGENEOUS SYSTEMS.
THINK DIFFERENT ALWAYS IN DEVELOPING NOVEL TESTBED ARCHITECTURES

input/s ——> Bayesian Methods as input/s to KOKA & GCCS Systems ——> Check the CODE using XFOR i.e C Programs generated by KOKA or GCCS

process the information

XFOR Tools & KOKA + GCCS based C Programs <——> Smart Devices + IoT + HPC Systems ——> Mongo DB or similar DB -> Space + Medicine or other important S&T Domains.

fine tune the algorithms for better performance

Testing in progress.

Thanks - Nirmal.

Please read our notes on Vixra.org or github to know more about our R&D.

Approximate Idea as a suggestion only.
Please check + satisfy yourselves on this approach.
It is highly useful to explore KOKA/GCCS based C Programs using XFOR Tools
to probe the frontiers of Software R&D.
We are not going into th full details because our present idea is wriiten as Short Technical Notes.
Thanks for understanding - Nirmal.

input/s ——> Linux - LLVM to TEST ——> fine tuning Polly -LLVM /LLVM based tools etc....

Algorithm I - Testing our Simple Idea -> Targeting Next Generation Smart Devices + IoT + HPC Heterogeneous Systems.
We are focusing on Space + Medicine + Telecoms + HPC R&D Domains.
One of the pioneering research efforts.
Actual implementation will certainly vary to some extent for sure - please check .

[Figure I – Algorithm I – A Simple Test Bed towards Testing Next Generation Software + Hardware involving KOKA + GCCS + XFOR + LLVM]

[a] Algorithm I :

GCCS -> Generate C Programs based on Bayesian Methods -> Perform XFOR Programming Analysis and Check the RESULTS -> We are targeting Medical Devices + IoT + HPC Systems. Rigorous Testing in progress @ the time of submission.Readers could easily generate their own informatics R&D Frameworks based on Novel Algorithms using our references + other published literature presented here.

[b] Algorithm II :

KOKA -> Generate C Programs based on Bayesian Methods -> Perform XFOR Programming Analysis and Check the RESULTS -> We are targeting Medical Devices + IoT + HPC Systems. Rigorous Testing in progress @ the time of submission.Readers could easily generate their own informatics R&D Frameworks based on Novel Algorithms using our references + other published literature presented here.

Here,we intend to study both GCCS & KOKA to probe our C Programs in designing advanced Software for our Medical Imaging Systems & Related Informatics using Bayesian Methods.**Actual implementation might vary to some extent - Please check.**

[III] Important & Useful References :

[a] https://www.kdnuggets.com/2016/07/bayesian-machine-learning-explained.html

[b] https://github.com/tejdnk-2019-ShortNotes/2021-Nir-Informatics/blob/main/KOKA-Bioinfo-Nir-21-GW.pdf

[c] https://github.com/tejdnk-2019-ShortNotes/2021-Nir-Informatics/blob/main/KOKA-Bioinfo-Nir-21.pdf

[d] https://github.com/tejdnk-2019-ShortNotes/2021-Nir-Informatics/blob/main/KOKA-Radiology-Nir-21.pdf

[e] http://xfor.gforge.inria.fr/index.html && [f] http://gentle.compilertools.net/

[g] https://github.com/tejdnk-2019-ShortNotes/tejdnk-Space-Medicine-Informatics-github.io/blob/master/GCCS-ACCENT-Nirmal-Gene-Chips-2020.pdf

[h] https://www.vixra.org/pdf/1910.0257v1.pdf && [i] https://polly.llvm.org/ && [j] https://polyhedral.info/

[k] https://www.microsoft.com/en-us/research/uploads/prod/2021/06/perceus-pldi21.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 + Future Perspectives :

One of the pioneering efforts in this advanced Software R&D domains.Worth pursuing it.Testing @ the time of submission.
Hope more technical notes or communications will follow based on our research efforts.Thanks.

[THE END]