Testing Photon to Explore RUST Programming Language w.r.t intel's Movidius + Other Smart Devices + IoT + HPC Systems + Rust Machine Learning Tools + Ur/Web in Heterogeneous Computing Environments R&D.

[Using Fractals/NLP + Photon Web Assembly + UR/Web RUST Tools for Advanced Medical Imaging Research]

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[I] Main Idea + Inspiration + Introduction :

https://www.rust-lang.org/ → Highly interesting language for Future R&D Domains in the context of Advanced Medical Imaging Platforms.

 $\frac{https://github.com/tejdnk-2019-ShortNotes/2021-Nir-Informatics/blob/main/AVNET-U96-Ruby-Nir-21.pdf$

https://github.com/tejdnk-2019-ShortNotes/2021-Nir-Informatics/blob/main/Python-U96-Zynq-Nir-21.pdf

 $\frac{https://github.com/tejdnk-2019-ShortNotes/2021-Nir-Informatics/blob/main/RUST-U96-Nir-21.pdf$

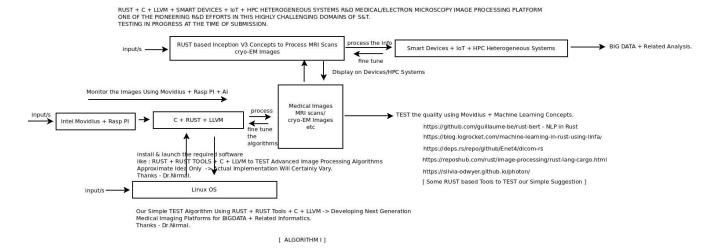
Information on Rust Programming Language:

"Rust is a <u>multi-paradigm programming language</u> designed for <u>performance</u> and <u>safety</u>, especially safe <u>concurrency</u>.[17][18] Rust is <u>syntactically</u> similar to <u>C++</u>,[19] but can guarantee <u>memory safety</u> by using a borrow checker to validate <u>references</u>.[20] Rust achieves memory safety without <u>garbage</u> <u>collection</u>, and <u>reference counting</u> is optional.[21][22]

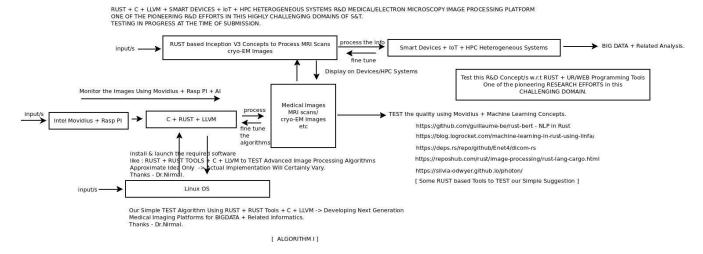
Rust was originally designed by Graydon Hoare at Mozilla Research, with contributions from Dave Herman, Brendan Eich, and others.[23][24] The designers refined the language while writing the Servo layout or browser engine,[25] and the Rust compiler. It has gained increasing use in industry, and Microsoft has been experimenting with the language for secure and safety-critical software components.[26][27]

Rust has been voted the "most loved programming language" in the <u>Stack Overflow</u> Developer Survey every year since 2016.[28] " - [Source - https://en.wikipedia.org/wiki/Rust (programming language)

[II] RUST Based Hardware + Software R&D Imaging & Informatics Framework:



[Figure I - Algorithm I - RUST based R&D Informatics Framework]



[Figure II - Algorithm II - Modified Algo I RUST based R&D Informatics Framework]

We are not explaining how to use RUST + Ur/Web here. Please make a note. Thanks.

Some important info on RUST + UR/WEB:

- [a] https://github.com/sheganinans/urweb-rs ***
- [b] https://github.com/tejdnk-2019-ShortNotes/2021-Nir-Informatics/blob/main/Ruby-Wlet-SVM-CA-M-Img-UrWeb-2021.pdf ***

[III] Some Important References:

https://www.rust-lang.org/what/wasm

https://silvia-odwyer.github.io/photon/

https://www.researchgate.net/publication/

319250589 Writing high parallel medical image computation software with Mozilla's Rust

https://enet4.github.io/mmir-meets-rust/#/

https://github.com/tejdnk-2019-ShortNotes/tejdnk-Space-Medicine-Informatics-github.io/blob/master/Web-Assembly-Img-Nir-2021.pdf

<u>https://github.com/tejdnk-2019-ShortNotes</u> → Many interesting links → Very Useful.

https://medium.com/@matriXanger/image-recognition-with-owl-a5a6d0caef33

[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 : Excellent Notes on RUST and its promising features w.r.t Advanced Medical Imaging + Intelligent Informatics R&D Platforms.

[THE END]