Exploring WebAssembly w.r.t RUST in the Context of Medical Imaging + Electron Microscopy(EM) Image Processing Using Smart Devices + IoT + HPC R&D → A Simple & Interesting Suggestion to Explore COVID-19 Scientific BIG DATA.

[Researching RUST based Bio-informatics/Medical Imaging/Machine Learning R&D Domains]

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[I] Main Idea + Inspiration :

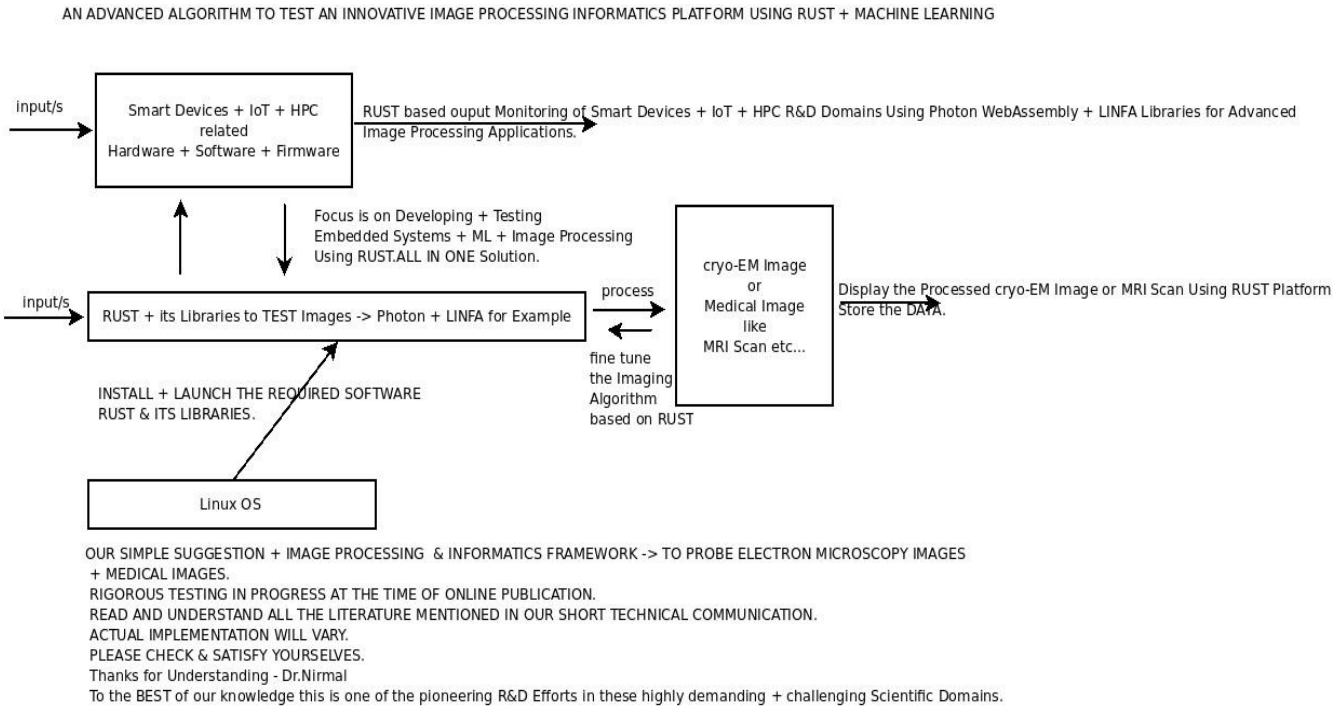
“ Photon is a high-performance Rust image processing library, which compiles to WebAssembly, allowing for safe, blazing-fast image processing both natively and on the web.”

[Source - https://github.com/silvia-odwyer/photon]

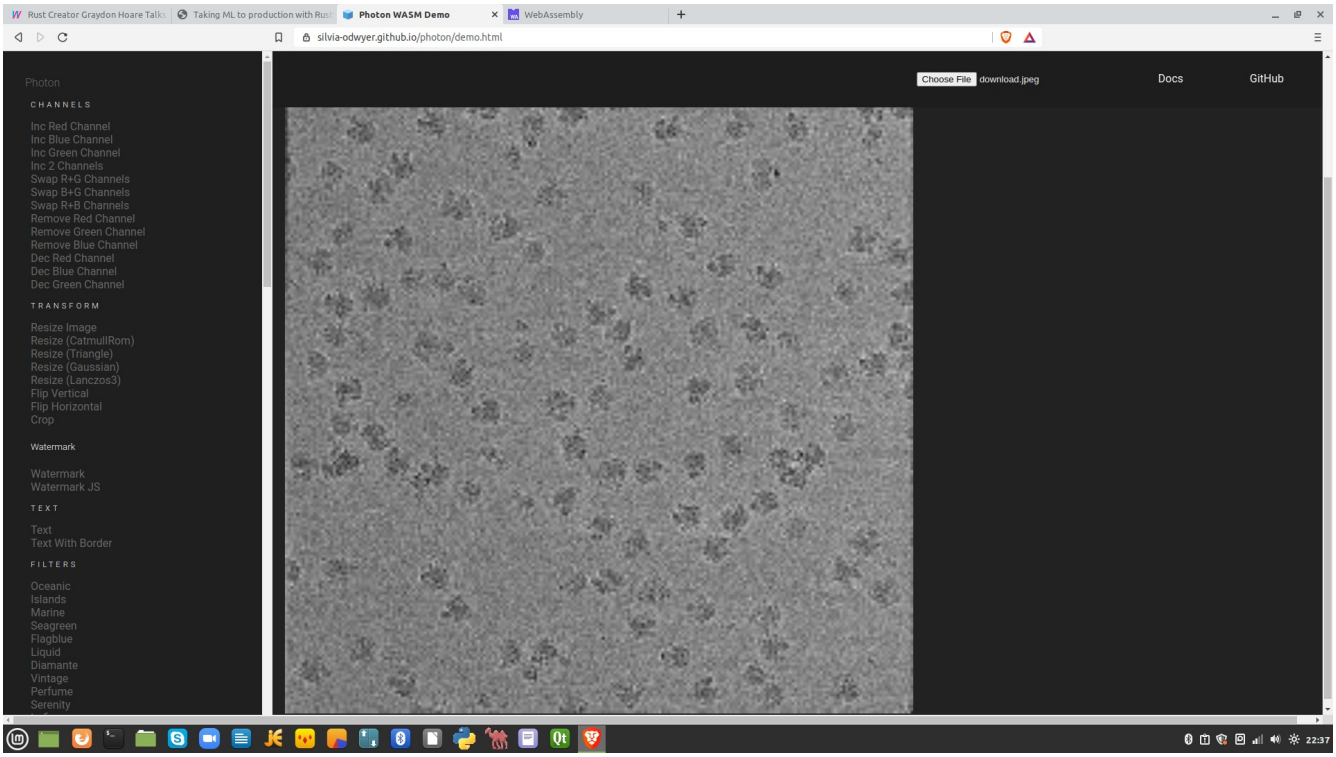
linfa → aims to provide a comprehensive toolkit to build Machine Learning applications with Rust.

[Source - https://github.com/rust-ml/linfa]

[II] WebAssembly Based R&D Informatics Framework :



[Figure I – Simple RUST based Image Processing Framework]



[Figure II – Testing of cryo-EM Image Using Above Mentioned Software]

High-performance, cross-platform Rust/WebAssembly image processing library + LINFA

[III] WebAssembly or Other Important Reference/s :

[a] https://github.com/silvia-odwyer/photon

[b] https://lib.rs/science/ml

[c] https://thenewstack.io/rust-creator-graydon-hoare-talks-about-security-history-and-rust/

[d] https://www.lpalmieri.com/posts/2019-12-01-taking-ml-to-production-with-rust-a-25x-speedup/

[e] https://webassembly.org/

[f] https://www.rust-lang.org/what/wasm

[g] https://github.com/tejdnk-2019-ShortNotes

[h] **https://www.researchgate.net/publication/303462482_Understanding_JikesRVM_in_the_Context_of_Cryo-EMTEMSEM_Imaging_Algorithms_and_Applications_- ***

[i] DOI : 10.5958/0975-8089.2016.00001.4 *

[j] https://en.wikipedia.org/wiki/Cryogenic_electron_microscopy

[IV] Acknowledgment/s :

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

[V] Conclusion/s With Future Perspectives :

Just to mention,we have considered → A High-performance, cross-platform Rust/WebAssembly image processing library in the Context of COVID-19 Image Processing + Bio-informatics Platform.

[THE END]