Invesalius 3D Medical Imaging Software as an Informatics R&D Platform to TEST Some Novel Features w.r.t Python + Rust by Focusing on : Information Processing Speed + Machine Learning & BIGDATA + Jacobian-Neural Networks [NN] + QRNG-Py + LLVM-Specializer-Py Concepts -> Let's Speed Up Your Python Application With Rust.

[Exploring Rust + Python -> To Target Hi-end R&D Applications -> Towards Advanced Medical Imaging as Short Technical Notes]

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[I] Main Idea + Inspiration + Introduction :

" InVesalius is a free medical software used to generate virtual reconstructions of structures in the human body. Based on two-dimensional images, acquired using computed tomography or magnetic resonance imaging equipment, the software generates virtual three-dimensional models correspondent to anatomical parts of the human body. After constructing three-dimensional DICOM images, the software allows the generation of STL (stereolithography) files. These files can be used for rapid prototyping."

[***Source - https://en.wikipedia.org/wiki/InVesalius***]

[II] Derivation of R&D Informatics Framework Using Rust + Python Tools :

Please derive your own informatics framework for your R&D.Thanks for understanding.

https://github.com/tejdnk-2019-ShortNotes/tejdnk-Space-Medicine-Informatics-github.io/blob/master/Python-Maxima-InVesalius-2021.pdf

[III] Important & Useful References :

[a] https://www.rust-lang.org/ && [b] https://www.python.org/

[c] https://en.wikipedia.org/wiki/InVesalius && [d] https://github.com/invesalius/invesalius3

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

[f] https://developers.redhat.com/blog/2017/11/16/speed-python-using-rust#

[g] https://github.com/tejdnk-2019-ShortNotes && [h] http://dev.stephendiehl.com/numpile/

[i] https://medium.com/unit8-machine-learning-publication/computing-the-jacobian-matrix-of-a-neural-network-in-python-4f162e5db180

[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 :

Let us Probe Advanced Medical Imaging with Rust + Python :: -> What a Combination !!!!

One of the pioneering R&D Efforts in this highly challenging domain of S&T.

Thanks for reading our Short Technical Notes or Communication.

Rigorous Testing in progress @ the TIME of Submission.

Hoping to see lot of Technical Communications in this domain.

[THE END]