

Designing -> An Advanced EM Image Processing & COVID-19 AI Informatics Framework Using Python + Python Based Tools.

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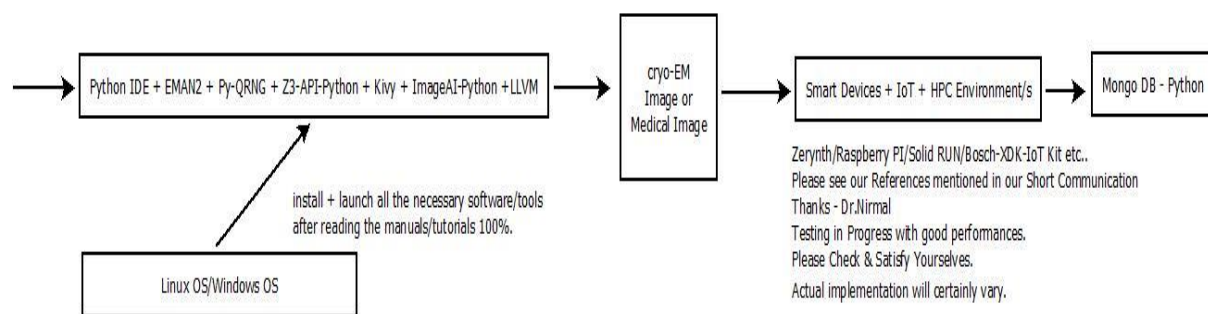
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[I] Abstract + Main Idea + Inspiration :

Designing -> An Advanced Electron Microscopy Image Processing & COVID-19 Informatics Framework Using Python + Python Based Tools in the Context of EMAN2 – Electron Microscopy(EM) Image Processing Software + OCaml-Python interfacing + Coq Theorem Prover + q*cert + ImageAI + Kivy - Open source Python library for rapid development of applications that make use of innovative user interfaces, such as Multi-touch Apps +Smart Devices+ IoT/HPC – in demanding Heterogeneous Environments.

[II] R&D Image Processing + COVID-19 Informatics Framework Using Above Mentioned Tools :

PYTHON + PYTHON BASED SOFTWARE TOOLS TO DESIGN DEVELOP TEST & IMPLEMENT ADVANCED IMAGE PROCESSING + INFORMATICS R&D FRAMEWORKS.
STATE OF THE ART IMAGE PROCESSING TO HANDLE TECHNICAL CHALLENGES IN EM/MEDICAL IMAGING.
COVID-19 NEEDS OF TOOLS BASED ON AI HENCE THIS SIMPLE PRESENTATION + SUGGESTION.



OUR SIMPLE CRYO-EM IMAGE PROCESSING/MEDICAL IMAGE PROCESSING INFORMATICS FRAMEWORK USING PYTHON FOR RAPID PROTOTYPING.
TESTING ALGORITHMS IS VERY EASY USING PYTHON.
THERE COULD BE OTHER LANGUAGES LIKE RUBY ALSO.HERE WE ARE FOCUSING ONLY ON PYTHON.
INSPIRING OTHERS IS ALWAYS USEFUL AND INTERESTING.
Not all the implementation details are covered in this Short Communication.

[Figure I – Our R&D Image Processing + Informatics Algorithm]

[III] Related Multi-disciplinary References (((via))) Vixra.org + Other Important Sources :

- [a] <https://github.com/tejdnk-2019-ShortNotes/Testing-EM-Images>
- [b] <https://vixra.org/abs/1709.0412>
- [c] <https://ericpony.github.io/z3py-tutorial/guide-examples.htm>
- [d] <https://pypi.org/project/qrng/>
- [e] <https://pypi.org/project/llvmlite/>
- [f] <https://www.python.org/>
- [g] www.imageai.org/ -> ImageAI using Python.
- [h] <https://kivy.org/#home> - Kivy using Python.
- [i] <http://dlib.net/ml.html> - Machine Learning Library in C++/Python.
- [j] <https://www.vixra.org/pdf/1812.0454v1.pdf> - ImageAI in action -> cryo-EM Image Processing.

[IV] Acknowledgment/s :

Sincere Thanks to all my Mentors + Collaborators + Friends internationally. Non-Profit R&D.

Inspiring Others always in the Context of Technical Challenges in Image Processing.

[V] Conclusion/s With Future Perspectives :

A Simple +Interesting R&D Framework Using Python+Python Related Tools is presented.

[THE END]