

Exploring Coq + Scala for better Machine Learning Applications – A Simple Suggestion.

Nirmal

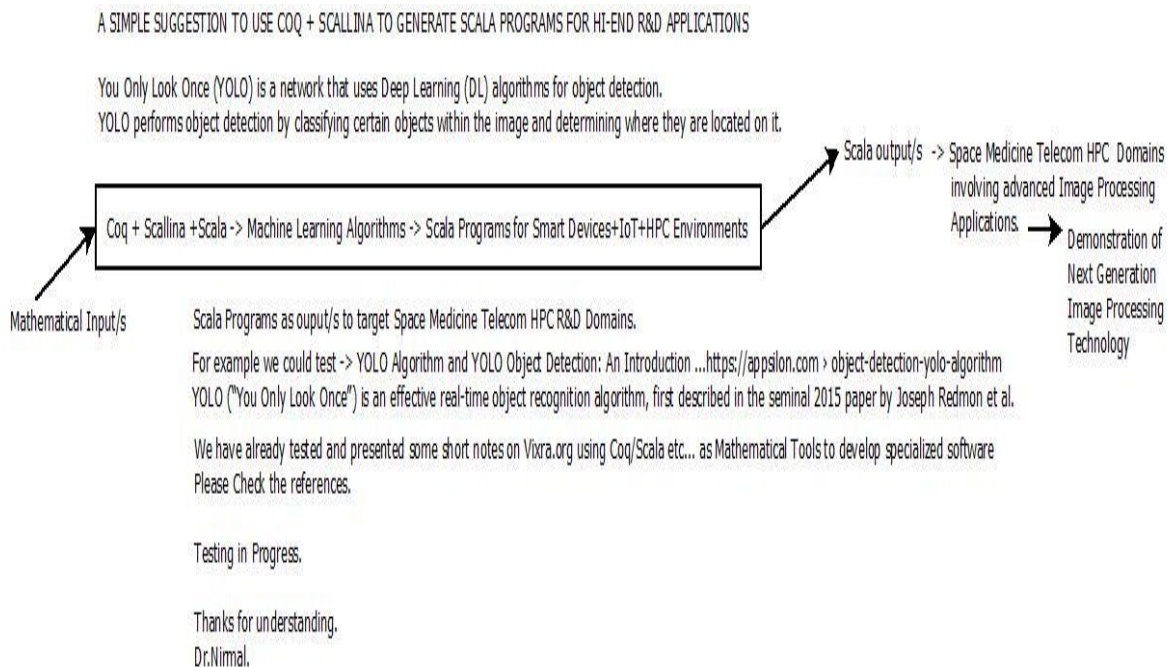
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[I] Inspiration + Introduction :

A Coq-based Synthesis of Scala Programs Using Scallina -> to Probe the Mathematics behind the Frontiers of Machine Learning Algorithms R&D.

[II] Informatics Framework Using Coq + Scala Code Generation :



[Figure I – Simple Idea to TEST Coq + Scallina +Scala w.r.t YOLO Algorithm]

<https://pylessons.medium.com/yolo-v3-theory-explained-33100f6d193>

El Bakouny Y., Mezher D. (2018) Scallina: Translating Verified Programs from Coq to Scala. In: Ryu S. (eds) Programming Languages and Systems. APLAS 2018. Lecture Notes in Computer Science, vol 11275. Springer, Cham. https://doi.org/10.1007/978-3-030-02768-1_7.

<https://jonathan-hui.medium.com/real-time-object-detection-with-yolo-yolov2-28b1b93e2088>

<https://vixra.org/pdf/1909.0490v1.pdf> - One of our useful Short Communications.

[III] Important References :

- [a] <https://coq.inria.fr/> - Coq Theorem Prover.
- [b] <https://arxiv.org/pdf/1706.05271.pdf> - Coq to Scala Programs.
- [c] <https://wiki.pathmind.com/scala-ai> - AKKA Framework for advanced information processing.

[VI] Acknowledgement/s :

Sincere Thanks to all WHO made this happen. Non-Profit R&D.

[V] Machine Learning Reading Materials :

- [a] <https://github.com/JBakouny/Scallina> - Software.
- [b] <https://youtu.be/-UM-kcYf7jQ> – Demo Link.
- [c] <http://ace.cs.ohio.edu/~gstewart/papers/aaai19-bagnall.pdf> - Coq + ML

[THE END]