# MOEA Framework interaction with Bio-CPP in the context of Nucleic Acids/Polypeptide Bio-Informatics & Computing towards Using – Java/JVM/Jikes RVM/C++/Genetic Algorithms.

A Free and Open Source Java Framework for Multiobjective Optimization

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## [I] Introduction & Inspiration:

MOEA Framework interaction with Bio-CPP in the context of Polypeptide Informatics towards a Simple Suggestion Using – Java/JVM/Jikes RVM/C++/ Genetic Algorithms.

Source: http://moeaframework.org/index.html

Source: http://biocpp.sourceforge.net/

## **Inspiration:**

http://www.scienpress.com/Upload/JAMB/Vol%202\_2\_6.pdf

https://www.cse.iitk.ac.in/users/sb/papers/a-talk.pdf

https://www.gwern.net/docs/biology/1993-fraenkel.pdf

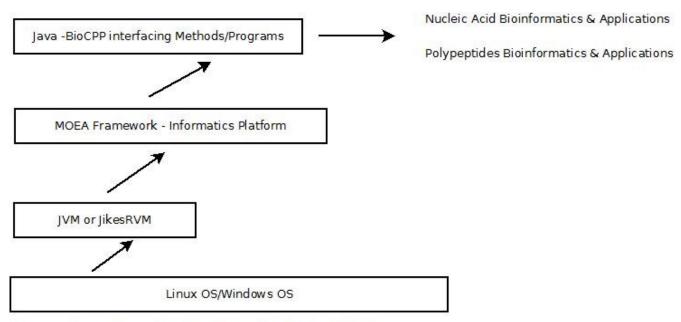
http://vixra.org/abs/1901.0157

http://vixra.org/abs/1901.0377

http://vixra.org/abs/1901.0366

http://www.iict.bas.bg/docs/2014-citations-IICT.pdf

#### [II] MOEA-Java-BioCPP Informatics Framework/s:



Approximate Bioinformatics Platform & Computing Framework

MOEA + BioCPP is an interesting approach in solving Bioinformatics Challenges

Fine Tuning is required - Please Check

**Figure I – Our Bio-Informatics Computing Framework.** 

"The MOEA Framework is a free and open source Java library for developing and experimenting with multiobjective evolutionary algorithms (MOEAs) and other general-purpose single and multiobjective optimization algorithms. The MOEA Framework supports genetic algorithms, differential evolution, particle swarm optimization, genetic programming, grammatical evolution, and more ."

[http://moeaframework.org/index.html]

"The layout of the libraries follows defined file format I/O for persistence and utilizes and is written in standard C++ with the STL. The libraries are split into two main classes: XNA handles nucleic acids (DNA, RNA, and RNA secondary structure), and PRO handles polypeptides (poly amino acids, proteins, and structures)."

[http://biocpp.sourceforge.net/scheme.html]

Please Note: Please check & satisfy yourself. A Simple Suggestion.

THINK IN A DIFFERENT WAY ALWAYS.

# [III] Information on Mathematics & Software Used:

- [a] http://biocpp.sourceforge.net/documentation/index.html
- [b] http://biocpp.sourceforge.net/scheme.html
- [c] https://sourceforge.net/projects/biocpp/
- [d] http://moeaframework.org/index.html
- [e] http://moeaframework.org/documentation.html
- [f] http://moeaframework.org/examples.html
- [g] http://moeaframework.org/features.html
- [h] http://moeaframework.org/features.html#algorithms
- [i] https://illigal.org/
- [j] http://moeaframework.org/examples.html

# [IV] Acknowledgment/s:

Special Thanks to all ho made this happen. Non-Profit Academic R&D.

THE END