

SIGEVO Summer School 2017 Challenge

Challenge posed by Dr Justyna Petke

Shashank Srikant

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shash@mit.edu

Which non-functional and which functional properties of software can be improved using genetic improvement? Please base your answers based on the talks you attend in this session

These were discussed in the talk "Embedding Genetic Improvement into Programming Languages". It painted a vision for how GI would go hand-in-hand with the development of programming languages and be an intrinsic part of the design as against being an add-on.

Non-functional properties

Some **non-functional properties** that can be improved

- Execution speed of the code-base
- Power consumption
- Memory consumed by the code-base at run-time
- Internal behavior or compilation/JIT properties of the code-base

Functional properties

Some **functional properties** that can be improved

- Automatic bug-repair (patch generation literature)