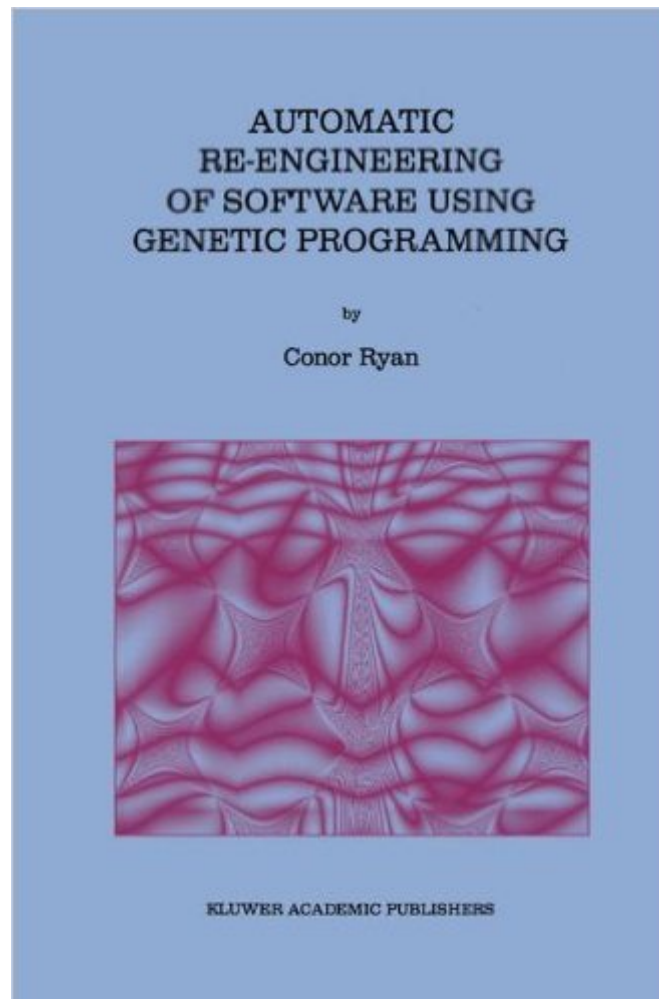


The book was found

# Automatic Re-engineering Of Software Using Genetic Programming



## Synopsis

Automatic Re-engineering of Software Using Genetic Programming describes the application of Genetic Programming to a real world application area - software re-engineering in general and automatic parallelization specifically. Unlike most uses of Genetic Programming, this book evolves sequences of provable transformations rather than actual programs. It demonstrates that the benefits of this approach are twofold: first, the time required for evaluating a population is drastically reduced, and second, the transformations can subsequently be used to prove that the new program is functionally equivalent to the original. Automatic Re-engineering of Software Using Genetic Programming shows that there are applications where it is more practical to use GP to assist with software engineering rather than to entirely replace it. It also demonstrates how the author isolated aspects of a problem that were particularly suited to GP, and used traditional software engineering techniques in those areas for which they were adequate. Automatic Re-engineering of Software Using Genetic Programming is an excellent resource for researchers in this exciting new field.

## Book Information

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## Customer Reviews

A clear non-mathematical in depth description of a new idea for automatically transforming (re-engineering) existing programs to run on parallel computers. There are several low level transformations which change individual lines of code or FOR loops. Existing programs contain many lines of code so the number of possible combinations of transforms and code lines is huge.

Ryan shows Darwinian natural evolution can be used to in the computer to automatically find appropriate transformations and where to apply them to the program to produce parallel code which works exactly like the original program but FASTER.

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Automatic Re-engineering of Software Using Genetic Programming Software Engineering Classics: Software Project Survival Guide/ Debugging the Development Process/ Dynamics of Software Development (Programming/General) Genetic Algorithms and Genetic Programming in Computational Finance Non-Functional Requirements in Software Engineering (International Series in Software Engineering) Genetic Algorithms and Engineering Design (Engineering Design and Automation) The Design of Innovation: Lessons from and for Competent Genetic Algorithms (Genetic Algorithms and Evolutionary Computation) Object-Oriented Software Engineering: Practical Software Development Using UML and Java Re-Engineering Software: How to Re-Use Programming to Build New, State-of-the-Art Software Swift Programming Artificial Intelligence: Made Easy, w/ Essential Programming Learn to Create your \* Problem Solving \* Algorithms! TODAY! w/ Machine ... engineering, r programming, iOS development) Software Components With Ada: Structures, Tools, and Subsystems (The Benjamin/Cummings Series in Ada and Software Engineering) Global Software Development Handbook (Applied Software Engineering Series) Software Failure: Management Failure: Amazing Stories and Cautionary Tales (Wiley Series in Software Engineering Practice) Error-Free Software: Know-How and Know-Why of Program Correctness (Wiley Series in Software Engineering Practice) Constraint-Based Design Recovery for Software Reengineering: Theory and Experiments (International Series in Software Engineering) Software Architecture in Practice (3rd Edition) (SEI Series in Software Engineering) Practical Software Reuse (Wiley Series in Software Engineering Practice) Object-oriented software development: Engineering software for reuse Software Reuse: Guidelines and Methods (Software Science and Engineering) Enterprise Software Platform: A Textbook for Software Engineering Students Java: The Simple Guide to Learn Java Programming In No Time (Programming,Database, Java for dummies, coding books, java programming) (HTML,Javascript,Programming,Developers,Coding,CSS,PHP) (Volume 2)

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