

Practical Artificial Intelligence in Julia

Implementing Neural Networks, Genetic Algorithms, and Neuroevolution in Julia

Develop a thorough grasp of artificial intelligence through practical implementations in Julia. This trailblazing book covers classical AI algorithms and provides practical implementations of agile AI applications, highlighting Julia's versatility and high-performance capabilities for AI development.

This book takes a practical approach to ensure that readers translate theoretical concepts into tangible, real-world scenarios. Along the way, you will learn and implement neural networks, genetic algorithms, and neuroevolution from scratch. Author Dr. Alexandre Bergel uses practical examples, such as solutions to the traveling sales problem and a fun platform game (including a random level generator) to reinforce AI techniques. It also introduces Darwinian evolution principles, demonstrating how to evolve zoomorphic organisms to solve particular tasks, such as stair climbing or going over obstacles.

This book stands out as among the earliest to delve into Genetic Algorithms and Neuroevolutions in Julia, and it is one of the few available that offers a comprehensive implementation of Neuroevolution. It is equally as fun as it is informative, providing readers with source code to play along with and apply to future projects.

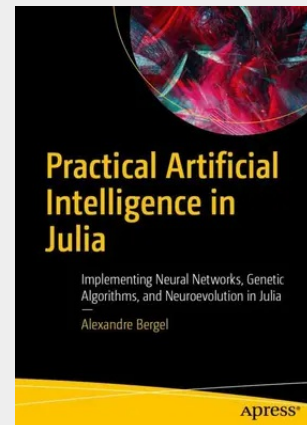
What You Will Learn:

- Solve simple classification tasks using neural networks
- Use genetic algorithms to solve complex algorithmic problems
- Apply Darwinian evolution principles to evolve artificially living creatures
- Discover how to Neuroevolution to build an artificial player to solve a platform game

Who This Book is For:

This book is written for software engineers, programmers and developers who are eager to gain practical insights into AI implementation using Julia at a beginner/intermediate level

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