Lecture Notes in Artificial Intelligence 956

Subseries of Lecture Notes in Computer Science
Edited by J. G. Carbonell and J. Siekmann

Lecture Notes in Computer Science
Edited by G. Goos, J. Hartmanis and J. van Leeuwen

Xin Yao (Ed.)

Progress in Evolutionary Computation

AI '93 and AI '94 Workshops
on Evolutionary Computation
Melbourne, Victoria, Australia, November 16, 1993
Armidale, NSW, Australia, November 21-22, 1994
Selected Papers

Springer

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Cataloging-in-Publication Data applied for

Die Deutsche Bibliothek - CIP-Einheitsaufnahme

Progress in evolutionary computation : selected papers / AI '93 and AI '94 Workshops on Evolutionary Computation, Melbourne, Victoria, Australia, November 16, 1993, Armidale, NSW, Australia, November 21 - 22, 1994 / Xin Yao (ed.). - Berlin ; Heidelberg ; New York : Springer, 1995
(Lecture notes in computer science ; Vol. 956 : Lecture notes in artificial intelligence)
ISBN 3-540-60154-6
NE: Yao, Xin [Hrsg.]; Workshops on Evolutionary Computation <1993 - 1994, Melbourne; Armidale, New South Wales>; GT

CR Subject Classification (1991): I.2, G.1.6, G.3, J.4

ISBN 3-540-60154-6 Springer-Verlag Berlin Heidelberg New York

Typesetting: Camera ready by author
SPIN 10486517 06/3142 – 5 4 3 2 1 0 Printed on acid-free paper

Preface

Evolutionary computation is the study of computational systems which use ideas and get inspirations from natural evolution and adaptation. The research in this field has progressed rapidly in recent years. This volume includes the papers presented at the AI'94 Workshop on Evolutionary Computation held in Armidale, New South Wales, Australia, 21–22 November 1994, and some of the papers presented at the AI'93 Workshop on Evolutionary Computation held in Melbourne, Victoria, Australia, 16 November 1993. Other papers presented at the workshops have been published in the journal *Informatica: An International Journal of Computing and Informatics, Volume 18, No. 4, December 1994*. They are:

D. T. Crosher, "The artificial evolution of adaptive processes," pp.377–386.
L. J. Fogel, D. B. Fogel and P. J. Angeline, "A preliminary investigation on extending evolutionary programming to include self-adaptation on finite state machines," pp.387–398.
T.Kido, K. Takagi and M. Nakanishi, "Analysis and comparisons of genetic algorithm, simulated annealing, tabu search and evolutionary combination algorithm," pp.399–410.
M. Tomita and T. Kido, "Sacrificial acts in single round prisoner's dilemma," pp.411–416.
J. Vaario, "From evolutionary computation to computational evolution," pp.417–434.
X. Yao and P. J. Darwen, "An experimental study of N-person iterated prisoner's dilemma games," pp.435–450.

The papers presented at the two workshops cover a wide variety of topics in the field of evolutionary computation, from evolutionary optimisation to evolutionary learning, from real-world applications to theoretical analysis. Although both workshops were held in Australia, more than half of the papers came from overseas (8 countries).

The success of a conference/workshop really depends on the close cooperation among participants, authors, reviewers, and organising committee members. I, as the committee chair, would like to take this opportunity to express my sincere thanks to all the authors, participants, and following members of the organising committee of the two workshops:

D. Abramson	Griffith University, Australia
E. Lewis	University College, University of New South Wales Australian Defence Force Academy, Australia
B. Marksjö	CSIRO Division of Building, Construction and Engineering
Z. Michalewicz	University of North Carolina — Charlotte, USA
H. B. Penfold	University of Newcastle, Australia
O. de Vel	James Cook University of North Queensland, Australia
K. P. Wong	University of Western Australia, Australia

and the following reviewers:

D. Abramson	A. N. Burkitt	P. J. Darwen	I. Davidson
D. Fraser	C. Jones	E. Lewis	B. Litow
B. Marksjö	Z. Michalewicz	H. B. Penfold	D. Sier
G. S. Trinidad	C. P. Tsang	A. Varsek	O. de Vel
P. Whigham	K. P. Wong	X. Wu	A. Zomaya

Finally, I would like to thank Professor J. Siekmann for his support and cooperation in editing this volume.

May 1995 Xin Yao

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