

TEAM OMID E. DAVID WINS 11th ANNUAL “HUMIES” AWARDS

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As a sequel to Cameron Browne’s (2012) contribution on winning the 9th Annual “Humies” Award, the current authors are pleased to report on their success in the 11th Annual “Humies” Award. We believe that winning such a prestigious award is good for our computer games community. Moreover, such a success may encourage other researchers to start a long-standing collaboration in which all parties involved contribute over many years. Our success is the result of a cooperation of more than nine years.

The “Humies” awards are an annual competition held in conjunction with the Genetic and Evolutionary Computation Conference (GECCO), in which cash prizes totalling \$10,000 are awarded to the most human-competitive results produced by any form of evolutionary computation published in the previous years.⁴ They have been conducted every year since John Koza, the pioneer of *Genetic Programming* (GP), instigated them in 2004. The winning entries typically describe leading results for difficult real-world problems, such as the inaugural winner evolving an improved antenna design for NASA satellites (Lohn et al., 2004). According to the rules of the competition, an automatically created result is only considered when it is “human-competitive”.

Seven entries were submitted to the 11th annual “Humies” competition, held at the July 2014 GECCO in Vancouver, Canada. This year’s entries were of a high standard, and the judges were impressed that most did indeed demonstrate human-competitive results. All 7 submissions were selected to be finalists.

There were three game-related entries this year (see Table 1). Our entry was called Genetic Algorithms for Evolving Computer Chess Programs (O.E. David, H.J. van den Herik, M. Koppel, and N.S. Netanyahu, 2014). The abstract reads as follows. “This paper demonstrates the use of genetic algorithms for evolving (1) a grandmaster-level evaluation function, and (2) a search mechanism for a chess program, the parameter values of which are initialized randomly. The evaluation function of the program is evolved by learning from databases of (human) grandmaster games. At first, the organisms are evolved to mimic the behavior of human grandmasters, and then these organisms are further improved upon by means of coevolution. The search mechanism is evolved by learning from tactical test suites. Our results show that the evolved program outperforms a two-time world computer chess champion and is at par with the other leading computer chess programs.”

Three prizes were given: \$5000 for the gold award, \$3000 for the silver award, and \$2000 for the bronze award. For more information about the competition see: <http://www.sigevo.org/gecco-2014/humies.html> and <http://www.genetic-programming.org/combined.php>

In Figure 1 you see the certificate. We feel that this is in fact the most prestigious award given by the EC community annually (much more significant than best paper awards), and thus a recognition of our paper as the most important work in evolutionary computation during the past year.

While presenting the certificate (see the photo), Erik Goodman (one of the leading persons in EC) spoke very highly of our work, emphasizing that it is exceptional to find a GA based work which brings spectacular results for a mainstream difficult problem where all competing machine learning approaches have failed, adding that such successes are critical for enhancing the image of evolutionary computation since even today many people from other fields view EC with skepticism.

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⁴ Overview of the “Humies” competition: <http://www.genetic-programming.org/combined.html>

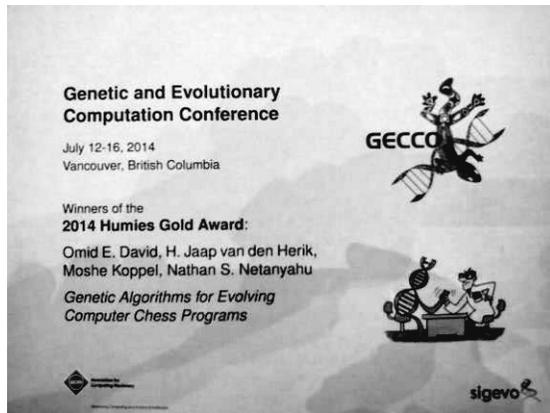


Figure 1: The Humies-gold.



Omid David Tabibi (l) and Erik Goodman

Gold Omid E. David, H.Jaap van den Herik, Moshe Koppel, and Nathan S. Netanyahu <i>Genetic Algorithms for Evolving Computer Chess Programs</i>
Silver Justyna Petke, Mark Harman, William B. Langdon, and Westley Weimer <i>Using Genetic Improvement & Code Transplants to Specialise a C++ Program to a Problem Class</i>
Silver Dror Sholomon, Omid E. David, and Nathan S. Netanyahu <i>Genetic Algorithm-Based Solver for Very Large Multiple Jigsaw Puzzles of Unknown Dimensions and Piece Orientation</i>
Bronze Radek Hrbacek and Vaclav Dvorak <i>Bent Function Synthesis by Means of Cartesian Genetic Programming</i>
Alberto Bartoli, Andrea De Lorenzo, Eric Medvet, and Fabiano Tarlao <i>Playing Regex Golf with Genetic Programming</i>
Vinicius Veloso de Melo <i>Kaizen Programming</i>
V. Scott Gordon, Steven Ray, and Laurent Vaucher <i>Evolving QWOP Gaits</i>

Table 1: The Seven Entries for the 2014 “Humies” awards.

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