

Erkin Bahceci

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Education

- May 2010** The University of Texas at Austin Austin, TX
Ph.D. in Computer Science
- 2005** Middle East Technical University Ankara, Turkey
M.Sc. in Computer Engineering
- 2002** Middle East Technical University Ankara, Turkey
B.Sc. in Computer Engineering, GPA: 3.87 (Ranked 1st)
B.Sc. in Mathematics (Double Major)

Skills

Programming/Markup Languages: C/C++, Objective-C, Java, Python, JavaScript, SQL, C#, ASP.Net, Bash scripts, LISP, Scheme, Prolog, Matlab, ML, Pascal, HTML, XSLT.

Operating Systems: Mac OS X, Linux, Windows.

Packages, Libraries, Tools: OpenGL, iPhone SDK, Protocol Buffers, Webots, Player/Stage, Open Dynamics Engine, libxml, Xcode, Visual Studio, Eclipse, gcc, vim, emacs, cvs, Subversion, git.

Work Experience

ITA Software Boston, MA
Engineering Intern May-Aug 2006 & May-Aug 2007

Worked on performance optimization, and developed an XML API handler in LISP and an AJAX application to utilize this API to generically view and manipulate database records with various types of fields.

Dept. of Computer Sciences, Univ. of Texas at Austin Austin, TX
Teaching Assistant Sep 2005 – present

Worked as a teaching assistant in a programming course on Java. Wrote Bash scripts to automate assignment evaluation.

Worked on an AI project on general game playing. Responsibilities included pre-exploring of states, network input size reduction, rule processing for generation of next game state, communication with the game server, and incorporating learning into evolution.

Conducted research on transfer of evolved pattern-based game heuristics between variants of a board game. Currently doing research on transfer learning in games.

Dept. of Computer Engineering, METU Ankara, Turkey
Research/Teaching Assistant Sep 2002 – Aug 2005

Worked in KOVAN research lab in biologically inspired robotics studies. Developed a physics-based robot simulator in C++ using Open Dynamics Engine (ODE). Worked as lead programmer in the porting of another physics-based robot simulator (Swarmbot3D) from a commercial physics engine (Vortex) to a free one (ODE). Utilized OpenGL extensively.

Worked as a teaching assistant in several courses. Developed an automatic circuit simulator/evaluator in C++ for a Logic Design course, which significantly saved time for teaching assistants. Prepared C++ and OpenGL homeworks in various courses.

IntroSolutions Ankara, Turkey
C#, ASP.Net Programmer (Part-time) Aug 2002 – Nov 2003

Developed C# code for a web application on tourism using SQL and XML, which connects to Amadeus for air-fare search. Also prepared ASP.Net web pages for this web application and administrator interfaces.

PCK Electronics Limited Ankara, Turkey
Visual C++ Programmer (Part-time) Feb 2001 – Mar 2002

Developed a Visual C++ application for medical imaging to handle CD-writing and printing of captured videos and images.

Informatics Institute, METU Ankara, Turkey
Web Designer, Java Programmer (Part-time) Aug 2000 – Feb 2001

Designed HTML web pages and developed Java applets demonstrating optimization algorithms for an Optimization course in an online Master's program.

Artificial Neural Networks and Intelligent Systems Lab, EEE Ankara, Turkey
Dept., METU (Summer Practice) Jul 2000 – Aug 2000

Studied on classification of *electroencephalogram (EEG)* signals caused by auditory responses in human brain using artificial neural networks and Matlab.

Open Source Projects

Compiz Developed the *animations* plugin, implemented performance and other improvements, utilizing Protocol Buffers from Google, for the Compiz window manager, written in C/C++.

Awards and Honors

- 2002** Graduation from Dept. of Computer Eng., METU: 1st rank
- 1998** Univ. Entrance Exam: 16th rank among 1,318,000 students, METU Scholarship award
- 1997** TÜBİTAK, National Informatics Olympiad: Bronze medal
- 1997** Computer Project Contest: 2nd position with 3D landscape generator/renderer
- 1996** Computer Project Contest: 3rd position with 3D model editor/renderer
- 1995** Science High Schools Entrance Exam: 29th position
- 1995** Mathematics Competition among American Boarding Schools in Turkey: 3rd position
- 1991** Turkey Private Schools Entrance Exam: 3rd position

Publications

- Bahçeci E. and Miikkulainen R. (2008). *Transfer of Evolved Pattern-Based Heuristics in Games*, to appear in Proceedings of the IEEE Symposium on Computational Intelligence and Games.
- Reisinger J., Bahçeci E., Karpov I. and Miikkulainen R. (2007). *Coevolving Strategies for General Game Playing*, Proceedings of the IEEE Symposium on Computational Intelligence and Games.
- Bahçeci E. (2005). M.Sc. thesis: *Evolving Aggregation Behaviors For Swarm Robotic Systems: A Systematic Case Study*, Computer Engineering Dept., METU, Ankara, Turkey.
- Bahçeci E. and Şahin E. (2005). *Evolving Aggregation Behaviors for Swarm Robotic Systems: A Systematic Case Study*. IEEE Swarm Intelligence Symposium, Pasadena, CA, USA.
- Bahçeci E., Soysal O., Şahin E. (2003). *A Review: Pattern Formation and Adaptation in Multi-Robot Systems*. Technical Report CMU-RI-TR-03-43. Carnegie Mellon Univ, Pittsburgh, PA, USA.
- Soysal O., Bahçeci E., and Şahin E. (2003). PES: A System for Parallelized Fitness Evaluation of Evolutionary Methods. In Proceedings of the 18th International Symposium on Computer and Information Sciences (ISCIS), Lecture Notes in CS 2869, pages 889-896, 2002. Springer-Verlag.

Languages Fluent in all aspects of English and Turkish.