

# Işıl Doğa Yakut, M.Sc. Candidate

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**Contact Information** Bilkent University, Department of Computer Engineering  
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**Research Interests** GPU-based parallelized techniques, Non-photorealistic rendering techniques, Physically based simulations, Physically based rendering techniques

**Education**  
**Bilkent University**, Ankara, Turkey  
M.Sc. candidate at Dept. of Computer Engineering  
Current GPA: 3.44/4.0 Expected Graduation: June 2011  
**Middle East Technical University**, Ankara, Turkey  
B.Sc. Dept. of Computer Engineering  
CGPA: 3.0/4.0 Graduation: June 2009  
**Private Kültür Science High School**, Istanbul, Turkey  
Graduation: June 2004

- Projects**
- **3DPhone European Union Project - Fall 2009 – Fall 2010**  
3DPhone project aims to develop technologies and core applications enabling a new level of mobile 3D experience, by developing an all-3D imaging mobile phone. The aim of the project is to realise all fundamental functions of the phone i.e. media display, user interface (UI), and personal information management (PIM) applications in 3D but usable without any stereo glasses.
  - **Multi-body Collision Detection Graduate Course Project - Fall 2009**  
Collision detection of iso-polyhedral object simulated on GPU
  - **Water Drops on Surfaces, Graduate Course Project - Fall 2009**  
Simulation of water drops once they are on a flat, non-porous and solid surfaces. Used algorithms and tools are Smoothed particle hydro-dynamics method and PBRT(a physically-based rendering tool) for simulation and rendering respectively.
  - **YGalib - Parallel genetic algorithm library, senior project. Graduation Project - Fall 2008 – Spring 2009**  
Conversion of GALib ( a genetic algorithms library ) to a parallel library for cluster use, abstracts over parallel calls to provide usability. Used C++, MPI, PBS and OpenMP.
  - **HPC Training Workshop ACM SC Education & Intel Software College - 4 days - Fall 2008** Participated in HPC workshop which focused on computational science methodologies and the related parallel programming tools such as MPI, OpenMP, Intel toolchain and libraries.
  - **Multiplayer Online Game Project Course Project - Spring 2009**  
Responsibility of design of the game scenario and gameplay. In addition to minor 3D modeling, supervising the integration of the server-side game loop with the client-side activities. Used XNA and C# as development environment.
  - **3D Game Project, "Computer Graphics" course project. Course Project - Fall 2008**  
Development of a 3D, turn-based, two player game. Used C++, OpenGL, GLUT, Object3DS.

- Work Experience**
- **Teaching assistantship Department of Computer Engineering, Bilkent University, Ankara, Turkey - Fall 2009 – present**
  - **Portakal Technologies Ankara, TURKEY ( Aug Sep 2008 / 2 months )**  
Intern as a Junior Software Developer  
Participated on TVQ Project. TVQ Project is a software system which has three dimensions; task, velocity and quality. I worked on task management software where a software development team members assign task within the team through internet. Used Struts2, Hibernate, JavaScript technologies.
  - **KoçSystem Business Solutions İstanbul, TURKEY ( June July 2008 / 2 months )**  
Department of Business Intelligence, Intern as a Junior Software Developer  
Participated on reporting of credits, deposits by company and department to analyse expenses based on a specified bank. Used Microsoft SQL Server 2005 and basic C#.
  - **YapıKredi Bank IT İstanbul, TURKEY ( Jan 2008 / 1month)**  
Department of Datawarehouse Management, Intern as a Junior Software Developer

Build a web application for company users to view authentications of portfolio users. Used ASP.NET, C# and Oracle.

**Achievements**

- Middle East Technical University High Honor Roll for 2 semesters
- Middle East Technical University Honor Roll for 1 semester
- Computer Graphics course, Project Completion Award [Fall 2008]
- Certificate for participation to Collaborative Learning Project, University of North Texas [Fall 2008]
- 948th among 1.7 million participants in University Entrance Exam (ÖSS)

**Computer Skills**

- Programming skills: C, C++, Java, MATLAB, Python, OpenGL, CUDA, GLSL. Also familiar with Perl, Haskell, Scheme, Prolog, HTML/CSS, SQL, PIC Assembly
- Tools & Libraries: OpenGL, MPI, Weka, L<sup>A</sup>T<sub>E</sub>X, SVN, Doxygen
- Programming experience on GNU/Linux environment.

**Languages**

- Turkish (native)
- English, TOEFL IBT score: 105/120 [October 2008]

**Other**

Piano player for 14 years. Performed in several recitals and mini-concerts.