# **Hassan Aly Selim**

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## **Objective:**

To brainstorm my ideas with other developers in a team, and apply what I learned in real projects.

## **Education:**

University	German University in Cairo
Faculty	Engineering
Major	Digital Media Engineering and Technology
Semester	Eighth Semester

### Languages:

Arabic	First Language
English	Excellent spoken/written
German	Very Good spoken/written

# <u>Skills:</u>

Programming Languages

- C#
- Java
- C++
- Javascript
- SQL
- ActionScript
- Prolog
- Haskell

#### Web Development Skills

- HTML (4 & 5) and XHTML 1.1
- CSS (2 & 3)
- ASP.NET
- ASP.NET MVC 2
- jQuery
- XML

#### Graphics Programming

- XNA Game Studio (4.0, 3.1, 3.0, 2.0)
- High Level Shader Language (HLSL)
- OpenGL
- Silverlight (3 and 4)
- WPF
- Java Swing Library
- Flash
- Visual Studio 2005/2008/2010
- Expression Blend (3 & 4)
- Eclipse
- SWI-Prolog
- WinHugs 98

IDEs

#### Theoretical Knowledge

- Full control over Object Oriented Programming
- Very Good understanding of Data Structures
- Experienced in Design Patterns
- Good understanding of Databases

Other Skills

- Communication and Presentation Skills
- Can work in a Team

# Projects:

Project Name	Description
Asteroids Game	This is a 3D game similar to the classic "Asteroids" made by "Atari", I made this project to learn about the "Microsoft XNA Game Studio" and the C# language, it started with the "Going Beyond" XNA tutorial, then I continued to add features and turned it into a complete game, the 3D models and sound effects was taken from the "Space Wars" XNA Starter Kit, I made v1.0, v1.1, v1.2 and working on v1.3
Connect 4	A 3D version of the popular Connect 4 board game, I programmed it in C# and using the XNA Framework, I started from scratch, I made the 3D models for the game, and wrote the code based on the Console version I made earlier with JAVA, the game is still in BETA
UDP Chat	A simple UDP client, I programmed it in C#, I made it to learn about building applications that connects with other computers through UDP clients (like LAN multiplayer games), I succeeded in making 2 computers on the same local network chat just by typing the targeted computer name or IP address and the UDP port, then they can type whatever message they want to send and the whole conversation appears in a scrollable history panel
The Resuscitation Game (ImagineCup 2009)	This game was made for Microsoft's "Imagine Cup 2009" Game Development Competition, I was in a team with 2 of my friends, it was required that we program it using C# and the XNA framework, the game was supposed to show and describe the problems facing an imaginary country and how a team of four friends who met randomly will solve all these problems and "resuscitate" their country, the game was submitted as a Round 1 entry but it didn't advance to Round 2 because it was incomplete because we didn't have enough time to work on it (about 2 weeks only)
Checkers	This is the project for my "Computer Programming Lab" university course, I was in a team with one friend, each team had to implement either a TetraVex or Checkers game using JAVA and implement its GUI with the Java Swing Library, we completed the game and it got evaluated as got 100/100, I later made a 3D version for it using C# and XNA using the same Game Engine
Logical Programming Project	This project was part of the "Concepts of Programming Languages" university course, I was in a team with 2 other friends, our task was to schedule the players of Egypt's football team going to the world cup in South Africa 2010 to choose the players and their positions, arrange their seating order and assign their lockers during the cup given the knowledgebase in a file, we were required to implement the project in "Prolog" using "SWI-Prolog"
Functional Programming Project	This project was part of the "Concepts of Programming Languages" university course, I was in a team with one other friend, our task was to implement some functions in "Haskell" using "HUGS 98" to evaluate and simplify Logical Expressions and generate Truth Tables for them

World Relief (ImagineCup 2010)	I participated in Microsoft's ImagineCup 2010 Game Design Competition, it had the same Theme as ImagineCup 2009, That time I worked with 3 friends in a team and we worked on a new game different the previous year's "The Resuscitation Game". Its style is similar to city building games (like SimCity) but the player is supposed to help third world cities to fix their problems and thus achieving the UN Millennium Goals instead. This game also failed to pass Round 1 of the competition.
Chat Room Server and Client	This was my "Introduction to Computer Network" course's project, we were asked to implement a Server than manages Chat Rooms and Room Members and a Client that connects to the server and joins a Chat Room and starts chatting with other members in the room, the Server-Client connection was made through TCP Sockets, we defined our own Chat Protocol to differentiate between Chat Messages and Control Messages.
Block Mania Game	This was my Computer Graphics University Project, I worked in a Team of 4, we were asked to create anything that had a 3D Environment and Camera Navigation using OpenGL on C++ and using external frameworks was optional, so we chose to recreate a game we found on MiniClip called "Bloxorz" and we used the Panda3D Framework.
Online Tutorials Website	In my "Databases I" course, we had a project which required us to apply what we learned to implement a website were Lecturers and TAs could post Tutorials, Mini-Quizzes and other educational content for student to read, rate, comment and get graded on. We were free to choose any language to implement the website, but we had to implement the database in either MSSQL or MySQL, so I implemented the website using ASP.NET and C#, and built the Database using MSSQL.
String Encoder	At the end of my "Introduction to Media Engineering" course, we were asked to use what we learned in our Encoding Chapter to implement a simple Java Applet that Encodes strings using Run-Length, Huffman or LZW encoding, and it also had to show the Compression Ratio.
hassanselim.me	I decided to make myself a new website, and since I wanted to apply what I learned about ASP.NET and MSSQL, I didn't use any of the Blogging Services like Tumblr and Blogger and decided to implement everything myself from Databases to Web Design and Interface Elements. I implemented different APIs to integrate my website with other Web Services like Flickr, Twitter and Akismet (comment spam filter).
Webcam Live Video Streaming	As part of my "Multimedia and Networking" course, I had to either make a small research or project, I chose to make the project about Webcam live video streaming, I got an open source library called WPFCap to capture live video from my webcam, I then send the video to another computer on the same network using UDP Sockets.

For a full detailed list of my Projects, visit <u>http://www.hassanselim.me/Projects.aspx</u>

# Personal Data:

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Date of Birth	20 <sup>th</sup> May, 1990
Nationality	Egyptian
Military Status	Postponed
Marital Status	Single