ALI ESSAM ARAFA

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# ABOUT ME

I’m a challenge seeker, always trying and learning new things, approaching new fields, working on various types of projects.

# EDUCATION

AinShams University, Faculty of Computer and Information Science (Expected July, 2016)

Amireyah High School***,*** Math Section, Total Grade **99.6%** (2009 – 2012)

# QUALIFICATIONS

* **Languages:** C/C++ (good), C# (good), Java (good), JavaScript (good), TypeScript (good), HTML, CSS (good).
* **Concepts:** OOP, Neural Networks, General Algorithms, Data Structures, Language Processing.
* **Interests:** Robotics, Electronics, Gaming, Tech news, Online Problem Solving ([CF](http://codeforces.com/profile/ali.essam) [1], [TC](http://community.topcoder.com/tc?module=MemberProfile&cr=23154751) [2], [UVA](http://uhunt.felix-halim.net/id/177068) [3]).
* **Skills:** Self-Learning, Problem Solving, Leadership, Creative thinking.

# PROJECTS

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| [**OCRANN (DIGIT RECOGNITION USING NEURAL NETWORKS)**](https://github.com/ali-essam/OCRANN) |

* The project aims primarily to develop a simple **Neural Network Library** that supports multilayer backpropagation training. The library provides a simple interface to ease the way for any developer to work directly with neural networks without any excessive need for implementation details.
* The project also includes **Digit Recognition** as a showcase for the library. Initial training is done PC side, and then the trained network is transferred to **Android** application to take digit input from the touch screen and run it through the trained network and show the expected digit.
* Project Specifications:

Field: Neural Networks.

Core Programming Language: Java. UI: Android, Swing.

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| [**BASETA PROGRAMMING LANGUAGE**](http://baseta-language.appspot.com/) |

* Simple **programming language**, that aims to have Human (not only programmers) readable code, the project is based on [Bret Victor's Concepts,](http://worrydream.com/#!/LearnableProgramming) aiming to design a programming system to get people to understand programming, and facilitate the process of developing understandable code that represents their thoughts.
* Project Specifications:

Field: Language Processing.

Core Programming Language: TypeScript, JavaScript. UI: HTML, JQuery, JavaScript, Bootstrap.

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| [**ROBOCODE PROJECT**](https://sites.google.com/site/robocodefcis/home#!) |

* An application on **Language Processing**, **XNA** Graphics and simple **AI**. The idea is based on the [Original Robocode game,](http://robocode.sourceforge.net/) where the main target of the game is to develop an algorithm written in game **scripting language** to control your robot and compete with other robots.
* Project Specifications:

Field: Language Processing, AI, Graphics.

Core Programming Language: C#/.Net. UI: XNA Game Engine.

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| [**WORDS CASTLE GAME**](https://sites.google.com/site/wordscastlegame/) |

* Simple C++ game where we tried to port a game called [ztype](http://phoboslab.org/ztype/) to windows console view.

# HONORS AND AWARDS

* ACM-ACPC [4] Regional team contest, 48th place/81.
* ACM-ASCIS [5] Local team contest, 5th place.
* College Certificate for achieving 3rd place on Structured Programming project.

1. Code Forces: project joining people interested in and taking part in programming contests.
2. TopCoder: website hosting online programming contests.
3. UVA: archive for old programming contests, also holds some online contests.
4. ACM-ACPC: ACM Arab Collegiate Programming Contest.
5. ACM-ASCIS: Faculty of Computer and Information Sciences ACM student chapter.