Samer Samy Makary

Current Residence
Los Angeles, USA

E-mail: samer.samy.nazzir@gmail.com
Website: sites.google.com/site/smeggaly/
Date of birth: 05 December 19901

EDUCATION

Alexandria University, Faculty of Engineering **September 2007 - July 2012**
Major: **B.Sc. Computer and Systems Engineering**
Grade: **Very Good with Honors** (82.91 %) - **GPA: 3.499 / 4.0**
Graduation Project: Semantic similarity for Arabic text with application to document clustering.

WORK EXPERIENCE [1]

Game Developer Trainee at Innuva, IT **July 2011 - September 2011**

Game design and implementation using **Unity3d** game engine. The project involved creating a 3D shooting game for Web and Android platform. The game logic is being implemented using JavaScript for Unity3d.

ONLINE COURSES [2]

- Edx - ColumbiaX: CSMM.102x Machine Learning
- Edx - ColumbiaX: CSMM.101x Artificial Intelligence
- Udacity - Introduction to AI for Robotics
- Coursera - Machine Learning
- Coursera - Coding the Matrix
- Edx - Scalable Machine Learning
- Coursera - Programming Languages
- Coursera - Introduction to Functional Programming in Scala
- Coursera - Introduction to Cryptography
- Udacity - Applied Cryptography
- Coursera - Introduction to Recommender Systems
- Coursera - Algorithms Design and Analysis

TECHNICAL SKILLS

- Programming Languages: **Java**, **Python**, and **C/C++**.
- Web development: **HTML/XHTML**, **JavaScript**, **CSS**, **PHP**, and **J2EE (JSP and Servlets)**.
- Database: **MySQL** and **Oracle** with **Apex 4.0**.
- Game Development: **Unity3d** and **JavaScript**.
- Embedded Development: **Android** and **J2ME**.
- Code versioning using **SVN** and testing with **JUnit Testing**.
- Operating Systems: **Windows** XP, Vista, 7 and **Linux** Ubuntu 10.10.
- IDEs: **Eclipse**, **NetBeans**, **QtCreator**, **Microsoft Visual Studio 2008**, **CodeBlocks**, and **Xilinx**.

[1] References are available upon request
[2] Certificates are available upon request

ACADEMIC PROJECTS

- **Java**
  - **Documents Clustering with Semantics-based Similarity**: Developing a Semantic-based similarity metric for Arabic documents. The approach was then used for clustering news articles using different clustering algorithms like DBSCAN and Mitosis.
  - **Split TCP**: Implementing Split TCP protocol for wireless ad-hoc networks to improve performance.
  - **Data Structures and Algorithms**: Linear lists, BST, AVL trees, Hash tables, heap, Huffman encoding and visualization for sorting algorithms.
  - **Queuing System**: Implementing the back-end part of customers queuing system, where the system receives the request of the customers and assign each customer to a terminal to get serviced.
  - **Mini OS**: Implementing the basic components of an operating system like I/O handling and processes scheduling.
- **C/C++**
  - **eVoting System** (under Linux): Implementing the principles of the **Application Layer HTTP** client/server requests using Socket connection over **TCP** and **UDP**.
  - **SIC/XE Assembler** (under Windows): Prototype for assembler that produces the op-code of an assembly program.
  - **Concepts of Operating Systems** (under Linux): Concepts of processes, threads, and concurrent programming.
- **Mobile Development**
  - **Remote Presenter**: An application for mobile that allow the user to control PowerPoint presentation remotely. The application was developed for **Android** platform.
  - **Bomber-Man**: An implementation for the Bomber-man game with **J2ME**.
  - **HTTP-Requests**: A **J2ME** midlet that browses documents stored at a remote server.
- **Web Development**
  - **Shop Store** (JSP and Servlets): On-line shopping systems maintaining customers' orders and products inventories.
  - **College Module** (PHP): A website for TAs and students to connect.
  - **Service Meeting Website** (PHP): Website with **Arabic** content and data. Allowing the user to maintain the attendance to the meeting.
- **MATLAB**
  - **Numerical methods**: Implementing algorithms for solving equations and their simulation.
  - **Machine Learning**: Implementing techniques and algorithms like Linear and Logistic Regression, Neural Networks, K-Means clustering, and Gaussian anomaly detection.