

Curriculum Vitae

Maha Mohammed Nabeel El Meseery

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Education:

2004-2009 Msc.E., Cairo University, Computer Engineering Department, Giza, Egypt

- *Thesis Title:* **Sketch Recognition And Understanding.**
- *Thesis Supervisors:* Prof. Nevin Darwish, Dr Magda Fayek , Prof. Samia Mashali , Mahmoud Fakr El Din.
- *Graduate Courses:* Graduate Courses: Advanced Neural Networks, Image Processing and Computer Vision, Advanced Computer Networks, Advanced Database Systems, Embedded Systems, VLSI Testing, Numerical Analysis, and Technical Writing.

1998-2003 Bsc.E., Cairo University, Computer Engineering Department Giza, Egypt

- *Final Grade:* **Very Good with honors.**
- *Graduation project:* Personal Face identification System, **Distinction.**
- *Project Supervisors:* Dr. Madga Fayek.

Experience:

August 2008- present [part time]

Research and Teaching Assistant, American University in Cairo, Egypt, Electrical Engineering Department.

1. Conducting and helping develop research on On-line Arabic Handwriting Recognition. Including Conducting research on
 - (a) On-line and offline information to solve isolated and cursive Arabic handwriting.
 - (b) Various features extraction methods.
 - (c) Various classification and pattern recognition methods.
2. Assisting in collecting, gathering and analyzing On-line Arabic handwriting Datasets.
3. Conducted and helped with the research on Arabic and Latin handwritten digits by implementing different features extraction and classification methods to compare their performance.
4. Reading, analyzing and reviewing scientific and research papers.
5. Guiding students in their studies in Lab projects and programming assignments.
6. Conducting tutorials and problem sessions for students in various subjects.

January 2007- present

Research Assistant, Electrical Research Institute, Egypt.

1. Working as a member of the Signal Processing Lab in the Computer and Systems Department.
2. Conducting and helping develop research in various image processing. Including conducting research on
 - (a) Sketch recognition and hand drawn graphics.
 - (b) Using Swarm and Genetic optimization methods in Image processing.
 - (c) Face detection and recognition.
 - (d) Landmine detection from GPR Images.
3. Assisting in the research project undergoing in the department.
4. Providing a technical support for other researchers especially in field of JavaEE programming.
5. Design and develop the new ERI website.

September 2005- September 2009 [part time from January 2007]
Senior Software Engineer, EngNet, Egypt.

1. Introduced new software procedures in the company to enhance developers' performance and collaboration.
2. Supervised and managed the development process for the developers and software quality teams.
3. Assisted junior programmers in development using Java, JSP, Struts, RCP, Plug-in development and MySQL.
4. Analyzed and designed various software projects using UML and software engineering concepts.
5. Designed and developed various web applications in various commercial sectors.
6. Wrote the software requirements and specifications of software application.
7. Assisted in writing various grant/project proposals.

September 2003- September 2005

Teaching Assistant, Faculty of Computer Science, MSA University, Giza, Egypt.

1. Developed lab manuals and leading lab experiments for Software Engineering Methodologies, Object Oriented Programming, Digital Logic Design, Computer Graphics, Calculus, and Introduction to IT.
2. Assistant supervisor for senior student's projects (Mainly graduation project using ASP.Net, C#) .
3. Developing and delivering short courses in C++, C#, UML, and ASP.NET.

Publications:

1. Online Library of Scientific Models - A New Way to Teach, Learn, and Share Learning Experience, Elrefaei Hatem, Aboelfadel Tamer, Elmesery Maha, Elmofty Ali, Shafee Marwa, in Proceedings of the International Conference of "Interactive computer aided learning" ICL2007, Villach, Austria.
2. El Meseery, Maha, Fakhr El Din, Mahmoud., Mashali, Samia., Fayek, Magda & Darwish, Nevin., Sketch Recognition Using Particle Swarm Algorithms, IEEE International Conference on Image Processing, November, 2009, Cairo, Egypt.
3. El Meseery, Sketch Recognition and Understanding, Master Thesis, Faculty of Engineering, Computer Engineering Department, Cairo University, November, 2009, Egypt.
4. El Meseery, Maha, Fakhr El Din, Mahmoud, Tarek abouldahab, Sketch Recognition using Enhanced Particle Swarm Optimization, Artificial Intelligence and Machine Learning (AIML), April 2011, vol 11 no. 1, p.1-7, 2011.

5. El Meseery, Maha, Fakhr El Din, Mahmoud, El Nemer, Heba, A Hybrid Particle Swarm/Nelder-Mead Clustering Algorithm for Face Recognition, CiiT International Journal of Artificial Intelligent Systems and Machine Learning, Vol 3, No 10, September 2011.
6. AbdelAzeem, Sherif, El Meseery, Maha, Arabic Handwriting Recognition using Concavity Features and Classifier Fusion, The tenth International Conference on Machine Learning and Applications (ICMLA'11), Honolulu Hawaii USA, December 18-21, 2011.
7. AbdelAzeem, Sherif, El Meseery, Maha, Ahmed, Hany, On-line Arabic Handwritten Digits Recognition, (6 pages Submitted February 2012 to XIII International Conference on Frontiers in Handwriting Recognition,).
8. El Meseery, Maha, Fakhr El Din, Mahmoud, Image based Landmine Detection, (10 pages submitted February 2012 to Ain Shams Engineering Journal).

Awards:

1. Jul 2003: Cairo University Award for Academic Distinction, Egypt.
2. 1999 - 2003: Fellowship, Faculty of Engineering, Cairo University, Giza, Egypt.

Computer Skills:

1. Environments: Linux (openSuse) and Windows.
2. Programming: Java, JSP, Struts, AJAX, .Net, C/C++, Matlab, C#, ASP.NET, ASP, ADO.Net, ADO, VC6, XML, Visual Basic, Embedded C, Assembly, Pascal, VHDL, Prolog, Lisp, latex.
3. Frameworks: JavaSE, JavaEE, JavaME, Eclipse RCP, Eclipse Plugin development and Drupal.
4. Database Tools: SQL server 2000, MySQL, Oracle and developer 6i.
5. Analysis and Modeling: UML, Hardware design.

Training Courses and Summer Jobs:

1. Human Development, Zedny Training Center, Cairo, Egypt (January - March 2005).
2. MS SQL 2000, MSA University, Giza, Egypt (July 2004).
3. C# dot Net and ADO dot Net, MSA University, Giza, Egypt (August 2004).
4. Web Development (ASP, XML, DOM, DHTML and ADO), Harf Information Technology. Cairo, Egypt (July - September 2002).
5. DB2, JSP, Java beans, Servlets and IBM Web Sphere, Cairo University, Giza, Egypt (July- August 2001).
6. Java applets, Training to develop an e-version of the calculus book taught to engineering students (August - September 2000).
7. MFC and VC6, Cairo University, Giza, Egypt (July 2000).

Projects:

1. 2010-Present, Online Handwriting project. [Matlab, java and C++].
2. 2009-2010, Arabic Digit Recognition project. [Matlab, java and C++].
3. 2007-2008, Schedulizier: a project to schedule and manage information of training companies (EngNet, Egypt) [JavaEE, Struts, AJAX and MySQL].

4. 2006-2007, Scientific Educational: a project to add scientific educational library to explain various mathematical and engineering concept to Engineering students.(EngNet, Egypt)[JavaSE, JavaEE]
5. 2006-2007, Scientific SDK: a project to help engineers create scientific simulations by automatically generating the user interface for them.(EngNet, Egypt)[Eclipse plugin development , RCP].
6. 2005-2006, Imodelit : a library of scientific Microwave java applets, consist of building different Visualization blocks. [JavaSE, JavaEE](EngNet, Egypt).
7. 2004, Mouth detection and segmentation using C++ (Master's Project).[C++]
8. 2004, Traffic Control System using micro-controllers (Master's Project). [Embedded C]
9. 2003, Personal Face identification System that uses various face recognition algorithms.[C++] (Graduation project).
10. 2003, Using Neural Network to recognize English Characters. [Matlab]
11. 2003, Keyless Entry System using 80468 assembly.
12. 2003, Implementing a Processor. [VHDL]
13. 2002, Simulation of a single processor operating system. [Java]
14. 2002, Building a mathematical simulation program, (A java program to help the explanation of mathematical theoris to Engineering Students). [Java]
15. 2001, Developing a Database for a social security accounting office using Oracle Database. [Oracle]
16. 2001, Water Filter (Hardware project).
17. 2000, Snake Game using Pascal. [Pascal]

Languages:

Arabic (Native), English (Fluent), French (poor).

Social Activities and Professional Memberships:

1. Student member of the Institute of Electrical and Electronics Engineers (IEEE) since 2002.
2. Member of the Egyptian Engineering Syndicate (ESE) since 2003.
3. Member of *Resala* Charitable Society since 1999, responsible for the following activities:
 - (a) Carrying out the big sister role for orphan girls. This includes the following
 - i. Helping developing better education procedures for *Resala* organization orphans.
 - ii. Attend courses on behaviour modification and social interaction for teenagers.
 - iii. Acting as guidance for behavioural, social and mental aspects for orphaned teenagers.
 - iv. Teach teenagers educational courses in different subjects.
 - (b) Organizing blood donations campaigns.
 - (c) Delivering free-charge courses in IT (C, C++, VC6, Windows and office).
 - (d) Helping in writing the contents of tutorial for the various courses given at Resala ITcenter.
4. Member of Egyptian shooting clubs.
5. Enjoy reading, swimming, cooking, walking and watching movies.

References:

Dr. Magda Fayek (Professor)

Address: Computer Engineering Dept., Faculty of Engineering, Cairo University, Giza, Egypt.

Email: magdafayek@eng.cu.edu.eg.

Dr. Hatem El refaei (Associate Professor)

Address: Physics and Mathematics Dept., Faculty of Engineering, Ain Shams University, Cairo, Egypt.

Email: hatem@mcit.gov.eg.

Dr. Sherif Abdel Azeem (Associate Professor)

Address: Electrical Engineering Dept., School of Science and Engineering, American University in Cairo, New Cairo, Cairo, Egypt.

Email: shazeem@aucegypt.edu.

Dr. Mahmoud Fakhr El Deen (Associate Professor)

Address: Computer and Systems Dept., Electronic Research Institute, National Research Center, Tahreer Street, Dokki, Cairo, Egypt.

Email: mafakhr@mcit.gov.eg.