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Professional Profile:

I am currently an assistant professor in the Department of Computer Science at the Faculty of Computer and Information, Cairo University. I am in the process of promotion to an associate professor. I am also an honorary lecturer on University of Liverpool online MSc programs. I am a Canadian citizen. I am experienced in (1) teaching computer sciences, decision support and operations research courses, (2) designing and delivering educational and training programs, (3) research in software engineering, and (4) industrial software development and consultation. I have teaching experiences in prestigious universities across four continents. This includes University of Alberta, Canada, University of Leicester, UK, Cairo University and Zewail University, Egypt and KAUST in Saudi Arabia. Also, I have experience in open and distance education and in e-learning and online learning in the OU and University of Liverpool, UK and EELU, Egypt. My research interest area is software engineering, software evolution, applications of data mining and machine learning in software engineering and Internet of Things. I love challenge, problem solving and teamwork. I am seeking a challenging academic position in a prestigious university.

Education and Training:

2003	Ph.D. in Software Engineering, University of Alberta.
1996	M.Sc. in operations research from Cairo University.
1995	Software Development Skills Diploma, Information Technology Institute, Cairo.
1992	Diploma of operations research (2 years) from Cairo University.
1991 – 1994	Many training courses at IBM Egypt and other major IT companies in Egypt.
1990	B.Sc. of Computer Engineering from Ain Shams University, Cairo

Work Experience:

2016 – Now	Part time honorary lecturer, University of Liverpool.	I deliver (teach, convene and assess modules) on line education to students on MSc programs in IT.
2006 – Now	Assistant Professor at the Dept. of Computer Sciences, Faculty of Computer and Info., Cairo Uni.	Teaching computer science and SE subjects, conducting research in the area of software reengineering and evolution.
2015 - 2016	Adjunct Assistant Prof. at Zewail Uni. of Science and Technology.	Teaching computer science and SE courses.
2012-2013	Visiting Assistant Professor at King Abduellah University for Science and Technology (KAUST).	Designing and delivering computer science courses during summer 2012 and winter 2013 semesters.
2009 – 2010	Assistant Professor of Computer Science at the Egyptian E-learning University (EELU).	Designing and delivering e-learning computer science courses.

2005 – 2007	Associate Lecturer at the Open University, UK.	Tutoring distance and online education students by phone, email, mail, etc.
2003 – 2007	Lecturer at the Department of Computer Science, University of Leicester.	Teaching on the M.Sc. in Software Engineering and doing research in the area of software reengineering and evolution.
1997 – 2003	Teaching and research assistant at the Software Engineering Research Lab., Department of Computing Science, University of Alberta.	I assisted teaching SE courses and did my Ph.D. thesis research in the area of reverse engineering legacy systems.
Fall 2001	Sessional instructor at the Dept. of Electrical and Computer Engineering, University of Alberta.	I taught ENCMP100, C Programming for Engineers.
1994 – 1997	Instructor, TA and RA at the Dept. of Computing Sciences and Operations Research, Institute of Statistics, Cairo University.	I taught and assisted teaching a variety of computer sciences and operations research courses. And also, I did my M.Sc. degree.
1994 – 1997	Independent software engineer.	I worked alone and with teams of developers to develop medium size database applications, e.g. payroll systems, inventory systems, etc.
1993 – 1994	MIS developer, Shawki and Co. (Consulting Services), Cairo, Egypt.	
1991 – 1993	Software developer, trainer and network administrator at Gulf Petroleum Company (GUPCO), Egypt.	I did some mainframe programming and a lot of course design and user training and administrated a Novel network. I helped the company develop an in-house training computer program for thousands of its employees that saved lots of money.

Teaching Experience:

This is a partial list of courses and that I developed, convened, taught or helped teaching at Cairo University, The Egyptian E-Learning University, The British University in Egypt, KAUST, SA and University of Alberta, Canada, University of Leicester, UK and University of Liverpool, UK.

1. Introduction to / Fundamentals of Computer Sciences
2. Operating Systems
3. Programming I, II and III, OOP Programming and Concepts of Programming Languages
4. Software Engineering I and II (Undergrad and M.Sc. level)
5. Data Structures and Algorithms
6. File Organization
7. Software Process Engineering (M.Sc. level)
8. Software System Reengineering (M.Sc. level)
9. Advances Software Engineering (M.Sc. level)
10. Professional Issues in Computing (M.Sc. level)
11. Software Testing and Quality Assurance (M.Sc. level)
12. IT Project Management (M.Sc. level)
13. Various courses in operations research and linear and non-linear programming

Industrial Experience

I worked as a developer for a number of years, first at GUPCO and Shawki and Co. and then independent, developing QA systems, payroll systems, etc. Later and in recent years I give consultation as needed to firms in software development, software engineering practices and in researching innovative solutions for technical challenges.

Scholarships and Awards:

1. National Science and Engineering Research Council of Canada (NSERC) Postgraduate Industrial Scholarship (Value \$19,300 Cdn. for 2 years), 1998 - 2000.
2. Walter H. Johns Graduate Fellowship from University of Alberta (Value \$3,800 Cdn. for 2 years), 1998 - 2000.
3. KDD-2002: ACM SIGKDD Student Scholarship Award (The Eighth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining), sponsored by IBM, 2002

Research Projects

1. I was a researcher on **CelLest** project, funded by National Science and Engineering Research Council of Canada (NSERC), CRD Grant 215451-98. Duration: 1998 – 2001. The CelLEST project is a joint research project between the Software Engineering Lab. at University of Alberta, Canada and an industrial sponsor, Celcorp.
2. I was an investigator on **Leg2Net** project (From Legacy Systems to Services in the Net), A EU-funded project under Marie Curie Fellowship for the Transfer of Knowledge: Industry-Academia Partnership Scheme, TOK-IAP MTK1-CT-2004-003169. Fund: 417775 Euros. Duration: June 2004 - May 2008. It was a collaborative project between University of Leicester. UK and ATX, a software development company in Portugal.
3. I am the principle investigator on **Cairo Cloud Computer** project, funded by HP under HP Catalyst Initiative. Fund: \$148K in equipment, cash and training. Duration: Sep. 2010 – Sep.2012. The project aims to build a cloud computing facility for education and research at Cairo University.

Curriculum Development Projects

1. I was one of the initiators and a team member of **JMSE** project (Joint MSc in Software Engineering) funded by the EU via Tempus scheme under contract number 530637-TEMPUS-1-2012-1-PS-TEMPUS-JPCR. Euros. Duration: 2012-2016. The project established M.Sc. of Software Engineering programs in 3 Egyptian and 3 Palestinian universities in collaboration and partnership with 4 EU universities.

M.Sc. and Ph.D. Thesis Supervision

1. Rihab Eltayeb, M.Sc., *Java to C# Language Transformation*, Sudan University of Science and Technology. (2005)
2. Ali Matarawi, Ph.D., *Code Clone Detection Using Sequential Pattern Mining*. Cairo Uni. (2013)
3. Amr Galal, Ph.D., *Towards Optimum Service Oriented Architecture for Banking Domain*, Cairo University. (2015)
4. Mohamed Samir, M.Sc., *Software fault prediction using deep learning*, Cairo University. (expected to graduate in 2018)
5. Sara Hassan Sayed, M.Sc., *Students Clustering and Performance Prediction Based On SRS*, Cairo University. (expected to graduate in 2019)

6. Gehan Yahia El-Sallat, M.Sc., *Discovery of Mass Panic Using Intent of Things*, Cairo University. (expected to graduate in 2018)
7. Ahmed Ibrahim Mohamed Ibrahim, M.Sc. *A Recommendation system to remediate cross-site scripting vulnerabilities*, Cairo University. (expected to graduate in 2018)
8. Khaled Mohamed Gaber, *A maturity model for software engineering intelligence*, Cairo University. (expected to graduate in 2019)

Publications:

Refereed Journal Papers and Book Chapters:

1. Amr Galal, Hesham Hassan, and Mohamed El-Ramly. Security Decision Making Framework for SOA. *International Journal of Computer Science and Software Engineering (IJCSSE)*, volume 4, Issue 2, February 2015, pp. 46-54, ISSN (Online) 2409-4285, www.IJCSSE.org. (2015)
2. Modammad El-Ramly, Eleni Stroulia and Hani Samir. Legacy Systems Interaction Reengineering. In Ahmed Seffah, Jean Vanderdonckt and Michel C. Desmarais (editors), *Human-Centered Software Engineering: Software Engineering Models, Patterns and Architectures for HCI*, Springer, ISBN 978-1848009066. (2010)
3. Reiko Heckel, Rui Correia, Carlos Matos, Mohammad El-Ramly, Georgios Koutsoukos and Luís Andrade. Architectural Transformations: From Legacy to Three-Tier and Services. In Tom Mens and Serge Demeyer (editors), *Software Evolution, LNCS, Springer, ISBN 978-3-540-76439-7*. (2008)
4. Luis Andrade, João Gouveia, Miguel Antunes, Mohammad El-Ramly and Georgios Koutsoukos. Forms2Net - Migrating Oracle Forms to Microsoft .NET. In Ralf Lämmel, João Saraiva and Joost Visser (editors), *Generative and Transformational Techniques in Software Engineering*, volume 4143 of LNCS, Springer, ISBN 3-540-45778-X. (2006)
5. Mohammad El-Ramly, Wolfgang Prenninger and Marc Horstmann. Chapter 15: Case Studies. In Manfred Broy, Bengt Jonsson, Joost-Pieter Katoen, Martin Leucker, and Alexander Pretschner (editors), *Model-based Testing of Reactive Systems*, volume 3472 of LNCS, Springer. (2005)
6. Mohammad El-Ramly and Eleni Stroulia. Analysis of Web-usage Behavior for Focused Web Sites: A Case Study. *J. of Software Maintenance and Evolution*, John Wiley & Sons (2004).
7. Eleni Stroulia, Mohammad El-Ramly, Paul Iglinski and Paul Sorenson. User Interface Reverse Engineering in Support of Interface Migration to the Web. *Automated Software Engineering*, 3 10, 271-301, Kluwer Academic Publishers (2003).

Refereed Conference and Workshop Papers:

8. Farag Zakaria Safy, Mohammad El-Ramly, Akram Salah. Runtime Monitoring of SOA Applications: Importance, Implementations and Challenges, *Seventh IEEE International Symposium on Service-Oriented System Engineering (SOSE 2013)*, 315-319 (2013).
9. Rui Correia, Carlos M. P. Matos, Reiko Heckel, and Mohammad El-Ramly. Architecture Migration Driven by Code Categorization. In *Proc. Of the 1st European Conference on Software Architecture (ECSA)*, 115-122, volume 4758 of LNCS, Springer, (2007)
10. Mohammad El-Ramly. Experience in Teaching a Software Reengineering Course. In *Proc. of the 28th International Conference on Software Engineering (ICSE)*, May 20-28, 2006, Shanghai, China. ACM Press (2006).

11. Mohammad El-Ramly, Rihab Eltayeb and Hisham Alla. An Experiment in Automatic Conversion of Java to C#. In Proc. of 4th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-06), March 8-11, 2006, Dubai/Sharjah, UAE (2006).
12. Serge Demeyer, Filip Van Rysselberghe, Tudor Girba, Jacek Ratzinger, Radu Marinescu, Tom Mens, Bart Du Bois, Dirk Janssens, Stéphane Ducasse, Michele Lanza, Matthias Rieger, Harald Gall, Mohammad El-Ramly. The LAN-simulation: A Research and Teaching Example for Refactoring. In Proceedings of the International Workshop on Principles of Software Evolution (IWPSE), Lisbon, Portugal, IEEE Computer Society, September (2005).
13. Mohammad El-Ramly and Eleni Stroulia. Web-enabling Legacy Systems via Presentation Access: From Webulation to Automation. ICENCO'2004, 1st Int. Computer Engineering Conference New Technologies for the Information Society, 749-758, Cairo University (2004)
14. Mohammad El-Ramly and Eleni Stroulia. Mining Software Usage Data. International Workshop on Mining Software Repositories, (2004).
15. Nan Niu, Eleni Stroulia and Mohammad El-Ramly. Understanding Web Usage for Effective Dynamic Web-Site Adaptation . In Proc. of the 4th International Workshop on Web Site Evolution (WSE 2002), October 2, 2002; Montreal, Canada, 53- 62. IEEE Computer Society Press, ISBN 0-7695-1804-4 / 0769518044 (2002).
16. Eleni Stroulia, Mohammad El-Ramly and Paul Sorenson. From Legacy to Web through Interaction Modeling. In Proc. of the 18th International Conference on Software Maintenance (ICSM 2002), Maintaining Distributed Heterogeneous Systems (ICSM), 3-6 October 2002, Montreal, Quebec, Canada., 320 - 329. IEEE Computer Society, ISBN 0-7695-1819-2 (2002).
17. Mohammad El-Ramly, Eleni Stroulia and Paul Sorenson. From Run-time Behavior to Usage Scenarios: An Interaction-pattern Mining Approach . In Proc. of the 8th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (SIGKDD), July 23 - 26, 2002, Edmonton, Canada., 315 - 324. ACM Press, ISBN 1-58113-567-X (2002).
18. Mohammad El-Ramly, Eleni Stroulia and Paul Sorenson. Recovering Software Requirements from System-User Interaction Traces. In Proc. of the 14th International Conference on Software Engineering and Knowledge Engineering (SEKE), July 15-19, 2002, Ischia, Italy. , 447-454. ACM Press (2002).
19. Mohammad El-Ramly, Eleni Stroulia and Paul Sorenson. Mining System-User Interaction Traces for Use Case Models. In Proc. of the 10th International Workshop on Program Comprehension (IWPC 2002), 27-29 June 2002, Paris, France. , 21-32 . IEEE Computer Society Press, ISBN 0-7695-1495-2 (2002).
20. Mohammad El-Ramly, Eleni Stroulia, Paul Iglinski, Paul Sorenson and Bruce Matitchuk. *Modeling the System-User Dialog Using Interaction Traces*. In Proc. of the 8th Working Conference on Reverse Engineering (WCRE'01), 2-5 October 2001, Suttgart, Germany. , 208--217 . IEEE Computer Society Press (2001).
21. Eleni Stroulia, Mohammad El-Ramly, Paul Sorenson and Roland Penner. *Legacy Systems Migration in CelLEST*. In Proc. of the 22nd International Conference on Software Engineering (ICSE), June 4-11, 2000, Limerick Ireland, pg. 790. ACM Press (2000).
22. Eleni Stroulia, Mohammad El-Ramly, Lanyan Kong, Paul Sorenson and Bruce Matitchuk. Reverse Engineering Legacy Interfaces: An Interaction-Driven Approach . In Proc. of the 6th Working Conference on Reverse Engineering (WCRE'99), 6-8 October, 1999, Atlanta, USA, 292-302. IEEE Computer Society Press (1999).

Invited Workshop / Dagstuhl Seminar Papers (with Electronic Proceedings)

23. Mohammad El-Ramly. Experiences in Teaching Program Transformation for Software Reengineering, In the Electronic Proceedings of Transformation Techniques in Software Engineering, Dagstuhl Seminar 05161, <http://drops.dagstuhl.de/portals/05161/> (2006).
24. Andrew Walenstein, Mohammad El-Ramly, James R. Cordy, William S. Evans, Kiarash Mahdavi, Markus Pizka, Ganesan Ramalingam, Jürgen Wolff von Gudenberg, Similarity in Programs, In the Electronic Proceedings of Duplication, Redundancy, and Similarity in Software, Dagstuhl Seminar 05161, <http://drops.dagstuhl.de/portals/06301/> (2007).
25. Mohammad El-Ramly and Reiko Heckel. Reverse Engineering Service Models from Legacy Software, International ERCIM-ESF Workshop on Challenges in Software Evolution (ChaSE), April 12-13, 2005, Berne, Switzerland (2005).

Professional Activities:

- I refereed articles for IBM Centers for Advanced Studies Conference (CASCON), the Computer Journal of the British Computer Society (BCS) and the Journal of Software Maintenance and Evolution, International Workshop on Mining Software Repositories (MSR 2004), the 10th IEEE Int. Conf. on Engineering of Complex Computer Systems (ICECCS 2004), Conference on Advanced Information Systems Engineering (CAiSE'05) and ACM Transactions on Software Engineering and Methodology (TOSEM).
- I was a member of the program committee of The Working Conference on Reverse Engineering (WCRE 2004/2005/2008/2010/2011/2012).
- I was a member of the program committee of The International Conference on Program Comprehension (ICPC 2005).
- I was a member of the program committee of The International Arab Conference (ACIT 2005/2006).
- I gave invited seminars in Kuwait University (Kuwait), University of Calgary (Canada), University of Lincoln, UK (Mining Software Usage Data, 23 Nov. 2004), The Open University, UK (Mining Software Usage Data, 17 Feb., 2005).
- I served as an external examiner for the Faculty of Computing, University of De Montfort for M.Phil. Degree and as an internal examiner for the Department of Electrical Engineering, University of Leicester, UK.

References:

1. Prof. Reem Bahgat, Egyptian Cultural Counselor for UK & Ireland and **ex-Dean of Faculty of Computers and Information**, Cairo University. Email: r.bahgat@fci-cu.edu.eg (my ex-boss)
2. Prof. Abeer Elkorani, **Head of the Department Computer Sciences**, Faculty of Computers and Information, Cairo University. Email: a.korani@fci-cu.edu.eg Tel.: +2 01000226772 (my boss)
3. Prof. David Keyes, **Professor of Applied Mathematics and Computer Sciences**, KAUST. david.keyes@kaust.edu.sa (my ex-boss in KAUST)
4. Prof. Yasser Dakroury, **President of the Egyptian E-Learning University**, EELU and Prof. of Computer Engineering. Email: ydakroury@eelu.edu.eg Tel.: +202 3331 8401 (my ex-boss at EELU)
5. Prof. Ahmed Hassan, Queens University, Canada. <http://research.cs.queensu.ca/~ahmed/home/> (colleague / peer)