

Ahmed Alaa El-Din Naeem Mahrous Harby

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EDUCATION

M.Sc. in Computer engineering 2016 - 2019

Arab Academy for Science, Technology and Maritime Transport, Cairo, Egypt

- Graduated with **GPA 3.83**
- Example of studied courses: **Adv. Programming languages, Network Security, Computer Networks and Security, and Adv. Topics in Artificial Intelligence.**

B.Sc. in Computer engineering 2010 - 2015

Arab Academy for Science, Technology and Maritime Transport, Cairo, Egypt

- Graduated with **GPA 3.86 with honor**
- Ranked **1st among my cohort.**
- **Distinction grade** in graduation project (Research and Design).

ACADEMIC EXPERIENCE

- **Arab Academy for Science, Technology and Maritime Transport**
 - *Assistant lecturer – Computer Engineering Department* 2019 – To date
 - *Teaching Assistant – Computer Engineering Department* 2016 - 2019

RESEARCH INTERESTS

- Virtualization
- Cloud Computing
- Large-scale data processing
- Datacenter networking
- Coding for distributed storage systems
- Operating Systems
- Distributed Algorithms
- Distributed Systems
- Database Systems

RESEARCH EXPERIENCE

- **Master's Thesis 2019**
 - Thesis title "*More Accurate estimation of working set size in virtual machines*". In this thesis, the problem of working set size estimation in virtual machines was studied and came up with a method that allows a better estimation in **Linux**. A finite state machine was designed that can be used to accurately estimate the
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working set size and that is responsive to changes in workload. An algorithm was implemented on Linux using **QEMU-KVM** as hypervisor. The system was tested using the **Sysbench benchmark** for **Memory, CPU** and **Database workloads**. The results indicate that the algorithm provides better results in terms of **average working set size estimations** and is competitive with **existing techniques in terms of page faults**.

- **Publications**

A. A. Harby, S. F. Fahmy and A. F. Amin “More Accurate Estimation of Working Set Size in Virtual Machines” IEEE Access Journal vol. 7, pp 94039 – 94047, July 2019.

ACADEMIC SKILLS

- Teaching
 - **Operating Systems**
 - **Database Systems**
 - **Object Oriented Programming with Java**
 - **Advanced Programming with C#**
 - **Microprocessor Systems**
 - **Introduction to Computer**
 - **Structured Programming**

 - Familiar with **programming languages**
 - C programming language
 - C++ programming language
 - C# programming language
 - **Python** programming language
 - **JAVA** programming language
 - **ASP.net**
 - **Android**

 - Familiar with **software tools**
 - **Visual Studio**
 - **Eclipse**
 - **Micro C**
 - **Proteus**
 - **CodeBlocks**
 - **Netbeans**
 - **Oracle Database**
 - **Mysql**
 - **Matlab**
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- Familiar with **Operating Systems**
 - **Windows**
 - **Redhat**
 - **Ubuntu**
 - **Linux Mint**
 - **Kali Linux**

Language Skills:

• **English:** Very Good

• **Arabic:** Native

• **French:** Studied.
