

AMANI S. IBRAHIM

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Summary

- A PhD in ICT (close to submission).
- CCNA, CCNA-Security and CCAI certified.
- More than 7 years of experience in academic teaching.
- Very good analytical skills, problem solving skills, and communication skills. Highly flexible, collaborative, and goal-oriented.

Current Occupation

PhD Candidate (April 2010 to January 2014)

- **Employer:** Swinburne University of Technology – Melbourne, Australia.
- **PhD Research Title:** Virtual Machines Security in Infrastructure-as-a-Service Cloud Platform.
- **Project Summary:** My PhD research project targets developing a systematic and preemptive security solution for virtual machines hosted in the Infrastructure-as-a-Service cloud computing platform. In order to achieve the project goals, I developed a set of new tools and techniques including: (i) a virtual machine introspection framework to enable external monitoring for the hosted virtual machines, (ii) a points-to analysis tool to systematically disambiguates the generic pointers problem in C-based operating systems in order to generate an accurate kernel data definition that statically reflects the runtime kernel data layout, (iii) a systematic operating system object discovery approach, (iv) a systematic semantic gap builder tool, (v) a set of different operating system security tools and appliances based on the previously developed tools.

Academic Sessional Tutor (August 2011 to Currently)

- **Employer:** Swinburne University of Technology – Melbourne, Australia.
- **Subjects:** IT Security (HIT3321), LAN Principles (HET104), Networks and Routing (HET706), IP Technologies (HET424), Internetworking Technologies (HET708).

Work Experience

Assistant Lecturer (February 2005 to March 2010).

- **Employer:** Faculty of Computers and Informatics, Zagazig University – Cairo, Egypt.
- **Subjects:** Mathematics (1, 2, and 3), Operating Systems, Networks, Network Security, Operating System Security.

Education

MSc in Computer Science (Research-Based)

University: Ain Shams University – Egypt.

Major: Computer Science.

2006

To

2009

Research Area: Network Security and Intrusion Prevention Systems.

Thesis Title: Multiagent-Based Framework for Network Intelligence and Intrusion Prevention.

Project Summary: My MSc project mainly focused on developing a network and host-based intrusion prevention systems to defend against network threats – basic packet header attacks – and operating system kernel advanced rootkits – such as SSDT and IAT/EAT hooking.

2004

To

2005

Postgraduate Studies in Computer Science

University: Ain Shams University – Egypt.

BSc in Computer Science

2000

To

2004

University: Zagazig University – Egypt.

Major: Computer Science.

Grade: Excellent with Honor.

Research Interests

Cloud Computing, Virtualization Security, Operating Systems and Network Security, Attacks and Malwares, Program Analysis and Understanding.

Technical Skills

I am very good with several programming languages, concepts, tools and technologies, including:

C/C++/C#	Microsoft Windows Server 2003/2008 Administration	Ethical hacking skills
ASP.NET	Network Administration	Risk and vulnerability assessment
SQL Server 2000, 2005	IDA Pro, WinDbg, OllyDbg, Hex editors, CodeSurfer, VMsafe APIs.	Operating system and network security, and memory management programming skills

Publications

I have published more than 17 research papers over the last couple of years – during my PhD – in many of the top conferences in both software engineering, cloud computing and systems security. For a complete list of my publications and citations please visit my [personal webpage](#) and my [Google scholar profile](#).

Certifications and Qualifications

- Cisco Certified Network Associate Security (CCNA-Security) – valid until 2016.
- Cisco Certified Network Associate (CCNA) – valid until 2016.
- Cisco Certified Academy Instructor (CCAI) – valid until 2016.
- Oracle 10g Administration, Oracle Academy.



Awards

- Swinburne University Postgraduate Research Award, 2010.
- Ain Shams Research Award, 2006.
- The ideal student for Zagazig University, 2004.

Languages

Arabic (native)	English (Good – IELTS 7)	French (basic)
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Referees

Available upon request