**Nabil Makarem**

**PhD, Computer Science**

**Date & Place of birth** 16/11/1980, Lebanon

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Motivated to learn, grow, and excel in the academic field. Passionate about fostering academic development and success of every student.

**Research Interests**

Cyber Security, Internet of things, CoAP, Congestion Control

**Education**

**2017 – 2021**   **Ph.D, Computer Science,** Sorbonne University – LIP6 – Paris

* Research field: Internet of Things
* Thesis: Improving CoAP Congestion CoAP in lossy loT environment

**2012 – 2014** **M.S, Computer Science,** Lebanese American University – Beirut

**1999 – 2002** **B.S, Computer Science,** Beirut Arab University – Beirut

**Academic Experience**

**2022-08 – Present** **Assistant Professor - Lecturer,** *University of Utah, School of Computing*

* Serving in the MSD steering committee
* Serving in the website committee and Undergraduate Scholarship Committee
* Improved curriculum for ***MSD CS 6015 course*** by introducing new topics and developing corresponding material (Lectures, projects, assignments, and labs)
* Hiring and Supervising TAs for UnderGrad and MSD courses
* Supervising capstone projects

**Courses taught (MSD):**

* + CS 6010: Introduction to Software Development
  + CS 6011: Computer Programming
  + CS 6012: Data Structures and algorithms
  + CS 6015: Software engineering
  + CS 6016: Database Sys & App
  + CS 6019: MSD Capstone Project
  + CS 6800: MSD Capstone Internship

**Courses taught (UG):**

* + CS 3505: Software practice II
  + COMP1010: Programming for All

**2019-01 – 2022-04** **Lecturer,** *American University of Beirut (AUB), Beirut*

* Handled course coordination for EECE230/EECE330 and assigned work-studies/GAs for different sections.
* Designed and delivered syllabus, lectures, laboratory assignments, exams, homework, projects and grading.
* Held office hours, managed teaching assistants, and assigned final grades.

**Courses taught:**

* Algorithms and data structure (C++), EECE330
* Software tools (Qt, Documentation, Version Control, MakeFiles, Debugging, Profiling and Testing), EECE435
* Introduction to computation and programming (Python), EECE230 & EECE231

**2013-09 – 2017-06** **Computer Lab Instructor,** *Lebanese American University (LAU), Beirut*

* Graded quizzes, tests, homework and projects to provide students with timely academic progress information and feedback.
* Created materials and exercises to illustrate course concepts.
* Reviewed program materials and coordinated updates to keep department materials relevant and accurate.

**Courses taught**

* Introduction to computers, CSC201,
* Introduction to programming (Java), CSC243

**2015-01 – 2016-08** **Instructor,** *American University of Culture & Education (AUCE), Beirut*

* Applied various teaching aids to minimize learning gaps and effectively instruct and motivate students.
* Monitored student progress through test administration and adapted learning plans to optimize progress.
* Administered exams and assignments to monitor student understanding and progress.
* Reviewed class and student records to look for areas in need of improvement and implement plans of action.

**Courses taught**

* Introduction to Computers – Data Communication – System Analysis & Design – Computer Programming II (Java) – Advanced Operating System (Linux) – Database Management Systems

**Publications**

* **N. Makarem**, W. Bou Diab, I. Mougharbel and N. Malouch, "Performance study of the constrained application protocol in lossy networks," 2019 IFIP Networking Conference.
* **Nabil Makarem**, Wafaa Bou Diab, Imad Mougharbel, Naceur Malouch, “On the design of efficient congestion control for the Constrained Application Protocol in IoT”, Computer Networks, Volume 207, 2022, https://doi.org/10.1016/j.comnet.2022.108824.
* **Nabil Makarem**, Wafaa Bou Diab, Imad Mougharbel, and Naceur Malouch. “A non-Hidden Markovian Modeling of the Reliability Scheme of the Constrained Application Protocol in Lossy Wireless Networks”. In Proceedings of the 25th International ACM Conference on Modeling Analysis and Simulation of Wireless and Mobile Systems (MSWiM '22). Association for Computing Machinery, New York, NY, USA, 147–156.

**Certifications**

**2003-06** MCP, Microsoft

**2004-08** MCSA, Microsoft

**2004-09** MCSE, Microsoft

**2009-07** MCTS, Microsoft

**Computer Skills**

**Operating Systems:** Win 7, 8, 10, 11 / Windows Servers / Linux–Ubuntu

**Programming languages:** Java, C/C++, Python

**Databases:** SQL Server 2005 – 2012, MySQL

**Web:** HTML, CSS, Javascript, php, Drupal, WordPress

**Others:** Exchange 2003 – 2013, Firewall management, Hardware basics, Domain name registration, Hosting

**Other Related Experience**

**2007-06 – 2014-12** **IT Manager,** *Prime Pictures – Circuit Empire, Beirut*

* Outlined work plans, determined resources, wrote timelines and generated initial budgets as part of project scope determination.
* Guided organizational technology strategy and roadmaps.
* Adjusted project plans to account for dynamic targets, staffing changes and operational specifications.
* Closely collaborated with project members to identify and quickly address problems.
* Managed network and system performance, conducting troubleshooting, security patching and maintenance.
* Interviewed, hired, trained and mentored staff by coaching daily, leading performance reviews and offering constructive feedback.
* Played key role in on-going network design, reevaluation and optimization to keep pace with company growth.

**2005-06 – 2007-06** **IT Support,** *EVER East Med, Beirut*

* Configured networks for smooth, reliable operation to meet business processes and objectives.
* Diagnosed and resolved hardware, software and network problems and replaced defective components.
* Monitored stability of network and wireless services to deliver comprehensive stability.
* Managed all software and hardware issues for end-users.
* Managed data backups and disaster recovery operations.
* Configured, monitored and maintained email applications and virus protection software.
* Generated web hosting presence to accommodate specified needs, uploading and maintaining files on account.
* Provided front-end website development using editing software.

**2004-09 – 2005-04** **System Administrator,** *Chatila Publishing House, Beirut*

* Managed all software and hardware issues for end-users.
* Performed system maintenance and upgrades, including patches, service packs, hot fixes and new security configurations.
* Reviewed network settings and made immediate updates, which improved overall security measures.

**2001-06 – 2004-01** **Network Administrator,** *Time Int., Beirut*

* Installed and upgraded internal and third-party software.
* Installed patches and performed backups.
* Diagnosed and resolved hardware, software and network problems and replaced defective components.