

SAMER FAKHER SAWALHA, Ph.D.

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PROFESSIONAL SUMMARY

Accomplished Computer Science Professor, Director of Digital ERP, and Senior Software Engineer with over 15 years of robust experience spanning academic instruction, institutional technology leadership, and production-grade software development. Proven track record of designing high-speed Big Data and IoT forecasting frameworks, managing complex enterprise resource planning deployments, and publishing peer-reviewed research in high-impact Q1/Q2 scientific journals. Expert in full-stack development, database systems, data structures, and advanced predictive analytics.

ACADEMIC & TECHNICAL COMPETENCIES

- **Academic Competencies:** Data Structures & Algorithms, Database Systems, Object Oriented Programming, Structured Programming, Theory of Computation, Multimedia Systems, Big IoT Data Analytics, Cloud-Based IoT Frameworks Systems Architecture.
- **Technical Proficiencies:** ASP.NET, C#, JSP, Java, SQL Server, Oracle DB, AJAX, MVC, Android App Development, Power BI, Arduino API, WordPress.
- **Languages:** Arabic (Native - Fluent), English (Fluent - TOEFL: 500, National English Exam Score: 81).

EDUCATION

Doctor of Philosophy (Ph.D.) in Computer Science | *Princess Sumaya University for Technology (PSUT)* **2017 – 2022**

- Grade: Excellent
- Dissertation: Towards a High-Speed Big Data Analytics Framework for IoT

Master of Science (M.Sc.) in Computer Science | *Princess Sumaya University for Technology (PSUT)* **2011 – 2013**

- Grade: Excellent (All Semesters Honor)
- Thesis: Blank Background Image Compression and Storage

Bachelor of Science (B.Sc.) in Computer Science | *Princess Sumaya University for Technology (PSUT)* **2004 – 2008**

- Grade: Very Good
- Graduation Project: PSUT E-Learning Website (Honors: Summer 2005, Summer 2006, First Semester 2007, Second Semester 2008)

General Secondary Education (Tawjihi) - Scientific Stream | *Al-Jamiah Secondary School* **2004**

PROFESSIONAL EXPERIENCE

Director of Digital Enterprise Resource Planning | *Princess Sumaya University for Technology (PSUT)* **Jan 2024 – Present**

- Directing high-stakes institutional ERP migrations and digital system architectures to optimize administrative, academic, and financial operations.
- Leading software development and operations teams to align technical configurations with institutional strategic workflows.

Assistant Professor / *Princess Sumaya University for Technology (PSUT)* **Sept 2023 – Present**

- Delivering undergraduate/graduate-level coursework in core Computer Science domains and guiding research in high-performance IoT framework systems.
- Mentoring students on modern technical projects and serving on university committees to enhance curriculum pathways.

Lecturer / *Princess Sumaya University for Technology (PSUT)* **Oct 2022 – Sept 2023**

- Taught foundational and advanced computer science subjects.

Senior Software Developer / *Royal Scientific Society (RSS)* **Mar 2015 – Sept 2023**

- Engineered enterprise web applications, APIs, and client systems using ASP.NET, C#, and relational databases (SQL Server, Oracle DB).
- Led the execution and delivery of highly visible national projects for Jordan Ministries (Planning, Labor) and high-impact internal portals.
- Integrated modern physical/hardware frameworks (Arduino, RFID) into standard enterprise business applications.

Lecturer (Part-Time) / *Princess Sumaya University for Technology (PSUT)* **Feb 2021 – Jun 2021**

- Instructed specialized computing courses.

Senior Programmer / *Royal Scientific Society (RSS)* **Jan 2012 – Mar 2015**

- Designed and refactored core modular business components, utilizing modern JSP and ASP.NET architectures to enhance system performance and security.

IT Officer / *ESCWA Technology Centre (United Nations)* **Mar 2012 – Sept 2012**

- Administered vital technology networks, verified technical setups, and supported cross-border infrastructure environments for UN programmatic actions.

Programmer / *Royal Scientific Society (RSS)* **Jul 2008 – Jan 2012**

- Developed relational database queries, forms, and analytical reporting tools utilizing Oracle Forms/Reports and early ASP.NET frameworks.

COURSES TAUGHT

Data Structures and Introduction to Algorithms, Database Systems, Object-Oriented Programming, Structured Programming, Theory of Computation, Introduction to Computer Science, Multimedia Systems

PUBLICATIONS

- Sadel Muwahed, Samer Sawalha (2026). Enhanced Predictive Model for Personalized Asthma Exacerbation Based on Patients Biosignals and Environmental Factors. IntelliSys 2026, Springer, Cham. [Impact Factor: 0.62 | Scopus: Q4 | Accepted]
- Samer Sawalha, Ghazi Al-Naymat (2025). An Adaptive HoltWinters Model for Seasonal Forecasting of Internet of Things (IoT) Data Streams. Internet of Things Journal, Vol.6, No 3. Doi: 10.3390/iot6030039 [Impact Factor: 2.8 | Scopus: Q1 | Published]

- Samer Sawalha, Ghazi Al-Naymat (2022). Towards an Efficient Big Data Management Schema for IoT. Journal of King Saud University - Computer and Information Sciences. [Impact Factor: 13.47 | Scopus: Q1 | Published]
- Samer Sawalha, Ghazi Al-Naymat, Arafat Awajan (2021). Selective Windows Autoregressive Model for Temporal IoT Forecasting. IntelliSys 2021, LNNS, Vol 295, Springer. Doi: 10.1007/978-3-030-82196-8_48 [Impact Factor: 0.57 | Scopus: Q4 | Published]
- Samer Sawalha and Ghazi Al-Naymat (2021). Internet of things data compression based on successive data grouping. Turkish Journal of Electrical Engineering & Computer Sciences, Vol. 29 No 1. Doi: 10.3906/elk-2003-114 [Impact Factor: 0.806 | Scopus: Q3 | Published]
- Samer Sawalha and Arafat Awajan (2020). RecentNews Recommender Using Browsers History. IntelliSys 2020, AISC, Vol 1251, Springer. Doi: 10.1007/978-3-030-55187-2_22 [Impact Factor: 0.63 | Scopus: Q2 | Published]
- Samar Alsaqqa, Samer Sawalha, Hiba Abdel-Nabi (2020). Agile Software Development: Methodologies and Trends. International Journal of Interactive Mobile Technologies (IJIM), Vol. 14 No.11 [Impact Factor: 2.24 | Scopus: Q3 | Published]
- Samer Sawalha and Arafat Awajan (2014). Blank Background Image Lossless Compression Technique. International Journal of Image Processing (IJIP), Vol. 8 No. 1 [Impact Factor: 6.965 | Published]

SELECTED PROJECTS UNDERTAKEN

Over a career of robust software engineering, successfully designed, built, and maintained numerous digital systems (more than 48 projects). Key projects include:

- **Smart RSS:** ASP.NET, C#, Visual Studio 2017, Arduino API — Integrated real-time hardware telemetry into internal portals.
- **Procurement System (RSS):** ASP.NET, C#, Oracle DB, Toad Server, AJAX, Reporting Services — Digitalized high-volume procurement workflows.
- **Students Registration System (PSUT):** ASP.NET, C#, Oracle DB, AJAX, SQL Reporting Services — Modernized critical registration modules.
- **Projects Management System (Ministry of Planning):** ASP.NET, C#, SQL Server, AJAX, Visual Studio — Built critical dashboard reporting tools.
- **Child Labor System (Ministry of Labor):** ASP.NET, C#, SQL Server, AJAX — Developed reporting mechanisms to identify and mitigate child labor.
- **Laboratory Information Management System (RSS):** ASP.NET, C#, Oracle DB, Toad Server — Developed unified chemical and material testing databases.
- **Irada System (Ministry of Planning):** ASP.NET, C#, SQL Server, AJAX, Reporting Services — Created operational tracking platforms.
- **Palestine Insurance System (Palestine Capital Market Authority):** ASP.NET, C#, AJAX, SQL Server — Streamlined institutional insurance tracking compliance.
- **Electronic Document Flow System (RSS):** ASP.NET, C#, Oracle DB, Toad Server, AJAX, Reporting Services — A digitalized document flow and archiving system.

PROFESSIONAL CERTIFICATIONS & TRAINING

- Project Management Professional (PMP) Training — Royal Scientific Society (2023)

- Data Science & Visualization Using Python Certificate — IBM / Coursera (2022)
- Data Analysis with Python Certificate — IBM / Coursera (2021)
- Microsoft Professional Program in Data Science Certificate — Microsoft Corporation (2018)
- Power BI Certificate — edX (2019)
- Android Apps Development Certificate — Superiors (2017)
- .Net MVC Core Certificate — New Horizons (2017)
- SQL Server Tools and Techniques Certificate — New Horizons (2016)
- Oracle 10G Developer Track Certificate — Royal Scientific Society (2009)

PERSONAL DETAILS

Nationality: Jordanian | Date of Birth: June 18, 1986 | Gender: Male | Marital Status: Married