SHERIF TAWFIK AMIN   **Ph.D., Lead Design Analyst**

Email address: samin@jazanu.edu.sa

KEY STRENGTHS

Strategic Technology Initiatives	Emerging Technology & Business Intelligence
Competitive Proposal Writing	Systems Integration & Administration
Strategic Corporate Planning	Training, Lecturing, Development, & Mentoring
Advanced Technology Research	Team Building & Management
Rapid Prototyping & Programming	Simple & Creative Solutions

SUMMARY

- Over 30 years teaching experience in Computer Science courses.
- Six years 'experience as Project Manager, Chief Technology Officer, and Primary Investigator of a large winner projects funded by the **World Bank Group, Ministerial Council**, **EU**, and the **IMC**, during these years I gained experience in writing **FRS**, **URS**, **GDS**, **Release Document**, **Run book** and **Roll Out** plan.
- 30 years 'experience conducting research projects on areas such as **Computer Security, Bioinformatics, Computer Vision**, **Data Mining**, using **MATLAB** and **PYTHON** as programming tools.
- Ten years 'experience in computer based training, courses included (**Windows**, **PHP & MySQL**, **Exchange**, **Project Management**, **Citrix**, **Oracle-DBA**, **Programming, Linux**)

PROFESSIONAL AND ACADEMIC EXPERIENCE

University of Jazan, Faculty of Computer Science and Information Systems   Jazan, KSA
Head of the Faculty's Research Unit, Assistant Professor, Developer   August 2012 –until now

- Built Business Intelligence Scraping tool for one of the world's largest oil field services companies.
- Course Coordinator for Computer **Data Security and Privacy, Object-Oriented Programming in C++, Machine Learning, Innovation and Entrepreneurship, Introduction to Programming, Computing Ethics and Society**
- Supervised students' projects, taught and graded exams for the following courses:

Computer data Security and Privacy	Neural Networks
Project Management	Multimedia Applications
Computing Ethics and Society	Algorithm Analysis and Design
Introduction to Computers	Computer Programming 1
Object-Oriented Programming	Programming Language 1 and 2
Object-Oriented Programming in C++	Operating Systems
Personal Computer 1 and 2	Digital Design
Introduction to Artificial Intelligence	Network Management
Machine Learning	Data Mining
Innovation and Entrepreneurship	

University of Asyut, Department of Mathematics, Faculty of Science   Asyut, Egypt
Lecturer / Project Manager / Chief Science Officer   July 2004 –August 2012
Role: Lecturer

- Taught and graded exams in **Computer Technology**, **Data Structure and Algorithms**, **Compiler Design**, **Networks**, **Programming Languages (C++, PYTHON)**, **Computer Programming** and **Introduction to Computers** in different faculties at Asyut University for graduate and undergraduate students.
- Gave presentations and seminars in **Security** and **Bioinformatics**.
- Taught **MS Office**, **Outlook**, **Apache**, and **PHP&MySQL** courses at the **Information Technology Institute (ITI)**

Role: Author / Project Manager / Primary Investigator / Chief Technology Officer

- **Industrial Ubiquitous Aluminum Foam Components ($207,400.00) (PM), responsibilities includes:**
  - Attracted the IMC funding listed above through a proposal which was granted after competitive evaluation process.
  - Contacting vendors for the purpose of furnaces implementation and information.
  - Provided research materials and white papers for technically related issues.
  - Project's team salary negotiation, and documentation of project`s advancement.
- **High Availability LINUX Cluster ($131,000.00) (Author and PI),** responsibilities included:
  - Bringing the idea of the projects, Short term action plan

- Budget planning, User Requirements Specifications (URS),Functional Requirements Specifications (FRS)
  - General Design Specifications (GDS)
- **Neuman Esser Egypt (CTO), responsibilities included :**
  - Identifying, assessing, recommending and implementing purchases of any new technology for the company
  - Evaluate and identify appropriate technology platforms the company's services.
  - Communicate the company's technology strategy to investors, management, staff, and stakeholders.
- **Thin Client Technology for Improved Learning of Mathematics ($81,000.00)(Author),**responsibilities included**:**
  - Bringing the idea of the projects, action plan preparation
  - Co-managing the project
  - Budget planning, and reporting
- **Asyut's University Industrial Technology Transfer Unit (€25,000.00)**, responsibilities included:
  - Setting the vision and the objectives of the project
  - Co-managing the project
  - Strategic, and budget planning
  - Short term action plan
  - Reporting and communication
- **Support of Focal Point Activities to Promote, Facilitate and Enhance Egyptian Participation in EU Funded Research Program Especially 7ᵗʰ Framework Program for RTD (€10,000.00)**, responsibilities included:
  - Managing the project
  - Budget planning
  - Short and long term action planning
  - Training on proposal writing
  - Reporting and communication
  - Explain the scope and modalities of the whole spectrum of instruments to be used in FP7
  - Advise on administrative procedures and contractual issues

Role: Resident Expert ($40,000.00)

- Worked as resident expert at International Home Appliances (IHA) for the purpose of:
- Renewing and improving the performance of the existing refrigerators 'testing facility through complete replacement of the hardware that the data acquisition and control system is based on.
- Redesign of the old monitoring system so that the data acquired and analyzed, can be outputted via DDE or I/O file so other, general-purpose software programs such **EXCEL** can be used for analysis.
- Provide training on operation, configuration and maintenance of the newly installed system for the testing facility technical staff members.

Securities Industries Automation Corporation (SIAC)   **Brooklyn, NY, USA**
Lead Design Analyst   **October 2000 to February 2004**

1. *Online Software Update System*
Role: Senior Developer
Responsibilities:

- Developing of a multi-tier portal application for manipulation, automatic installation, and upgrade of **market data** application through wake on LAN to **Linux** client machines using **PHP, MySQL**
- Writing **stored procedures**, **triggers**, creating tables within **Microsoft SQL 2000 Server** environment.

2. *Wireless Internet Application for IPONET Network Users*
Role: Senior Developer
Responsibilities:

- Developed an **embedded Visual Basic** Internet wireless application to be used on a Compaq iPaq with a **Windows CE 3.0 OS** to retrieve **market data** information residing on an **SQL server 2000** database.
- Mentored new hires and handled project milestone transitions.

3. *Vmware as a Productivity Tool for the NYSE Trading floor*
Role: Senior Developer
Responsibilities:

- Alteration of **VMware Workstation** installation script in order to be integrated with NYSE Next Generation Trading Floor devices as a distributable module.

- Integration of **Bloomberg market data** application with VMware distributable modules.

4. *High-Quality streaming video for the NYSE*
Role: Senior Developer
Responsibilities:

- Development of a **high-quality streaming video** solution to different departments in the NYSE.
- Preparing the solution architecture for the streaming video network studying deployment requirements.
- Responsible for performing trade-off analyzes, evaluating vendors for different related products, and tested the requirements.

5. *Extensible Instant Messaging for the NYSE*
Role: Senior Integration Analyst and Architect
Responsibilities:

- Integrating IM to the NYSE infrastructure already in place with extensibility feature.
- Conducted a detailed analysis and assessment of instant messaging technology in the workplace.
- Responsible in every phase of development from Requirements Document to Launch.

6. *Corporate Documentation Web Portal*
Role: Senior Web Developer
Responsibilities:

- Designing the multi-tier application modules based on Microsoft dot NET architecture.
- Designing the database and implementing database objects on ORACLE
- Developing the Portal and Store modules using C#, ASP.NET.

7. *New Technology Instructor and Trainer*
Role: Senior Instructor
Responsibilities:

- Mentoring new fellow colleagues, by training them, courses included (Windows, Apache, PHP&MySQL, Security, Exchange, Citrix, MCDBA, Programming, Linux)

FJA Finansys Inc.,   **Manhattan, NY, USA**
Consultant   **February 2000 to September 2000**
Responsibilities:

- The development of JAVA integration software for the insurance industry using UML.
- The Development of a customer sensitivity model using Statistical modelling tool such as MATLAB
- Monitored installation and administration of Microsoft SQL Server 7.

Stevens Institute of Technology.   **Hoboken, NJ, USA**
Teaching Assistant, Researcher   **January 1999 –February 2000**
Responsibilities:

- Taught and graded Computer Architecture and Programming using C++, JAVA and PERL courses.
- Research activities in computer security, cryptography, system engineering.

Elsevier Engineering Information   **Hoboken, NJ, USA**
Assistant Web Master   **January 1999 –February 2000**
Responsibilities:

- Implementing data models and relational database designs, providing data access and performing table maintenance using **ORACLE** for the papers publishing sector.
- Scripting using **PERL** for effective maintenance for this **E-Commerce**.

University of Assiut   **Assiut, Egypt**
Teaching Assistant, Lab Administrator, Developer   **January 1995 –December 1998**
Responsibilities:

- Research activities in the field of **image processing** and **GIS**.
- Testing, tutoring, preparing documentations and providing students training.

SHERIF TAWFIK AMIN   Ph.D., Head of Research Unit, Project Manager, Lead Design Analyst

University of York   **York, England**
Researcher and Developer   **November 1993 –January 1995**
Responsibilities:
- Development of a **machine vision** technique using **C** to be used to find a suitable solution to map matching problems in order to be incorporated into a **GIS** system with **Neural Networks** capabilities.
- Geographic Information System (**GIS**) training and seminar in machine vision techniques.

University of Assiut , Egypt
Teaching Assistant   **September 1989 –October 1993**
Responsibilities:
- Taught and graded Calculus, Trigonometry, Algebra, Computer Programming, and Applications courses.
- Students 'lab administration, lab manuals and documentations preparation.

TECHNICAL SKILLS

- **Languages:** PERL, Python, C++, JAVA, JavaScript, SQL, PL/SQL, and C.
- **Databases:** Microsoft SQL Server7/2000, MYSQL, ORACLE.
- **Operating Systems:** HP-Unix, Linux, Windows Vista/XP/2000/NT/98/95/3.x, Windows CE 3.0,
- **Neural Networks and Computer Vision Development Tools:** C and HP workstation.
- **Development Tools and Technologies:** VMWare, MATLAB, SPSS, APACHE, PHP, SAMBA, MySQL, embedded Visual Tools, Symantec Visual Café, Allaire Homesite, Microsoft Office Tools, Photoshop 7

EDUCATION

1. **Ph.D.** in **Computer Science** with emphasis in **Bioinformatics** ,   **Assiut University, Egypt 2007**
   Department of Mathematics, **Doctoral** dissertation was titled:
      "On Bioinformatics-based Data Communication Security Techniques".

2. **Post Graduate Studies,**   **Stevens Institute of Technology, USA, 2004**
   Department of Computer Science,

1) **Database Management**	2) **Data Structures and Algorithms**
3) **Fundamentals of Computer Security**	4) **Network Design**
5) **Advanced Programming in C and UNIX.**	6) **Information Systems Security**
7) **Data Mining**	8) **Distributed Systems**
9) **Computer Architecture**	10) **Computer and Multimedia Network Security**
11) **Statistical Modeling**	12) **System Operational Effectiveness and Life Cycle Analysis**

3. **M. Sc.** in **(Computer Science),**   **University of York, England 1995**
   Department of Computer Science, **M.Sc.** dissertation was titled:
      "ADAM: A Distributed Associative Memory for Map Matching"
4. **B. Sc. (Mathematics),**   **Assiut University, Egypt 1989**

PROFESSIONAL TRAINING

- Oracle Data Base Administration 10G (ORACLE)   07/2008 Asyut, Egypt
- Frame Work Seven (FP7) proposals development (British Council)   03/2008 Asyut, Egypt
- Proposal Writing for International Funding (British Council)   11/2007 Cairo, Egypt
- Network Security (Polytechnic Institute of New York University)   04/2002 New York, USA
- Enterprise JAVA beans (SIAC)   01/2001 New York, USA
- Geographic Information Systems GIS (The University of York)   07/1993 York, England

LIST OF PUBLICATIONS

1. A DNA-based Implementation of YAEA Encryption Algorithm, From Proceeding (523) Computational Intelligence –2006
2. Identity Detection of Typist using Image Processing, Published in the ICGST-GVIP Journal, Volume 7, Issue 3, November 2007
3. Advanced Parallel Genetic Algorithm with Gene Matrix for Global Optimization, First International Conference, AMLTA 2012, Cai ro, Egypt, December 8-10, 2012
4. Computer Sugar crystallization in low temperatures: The theory and practice by advanced sugar crystallization control program International Journal of Engineering and Technical Research (IJETR) ISSN: 2321-0869, Volume-2, 6, June 2014,Yassien M.Temerk, Osama Z.El-Abdein, Ibrahim D. Abdullah, Sherif T. Amin
5. Design and Evaluation of a Full Control Program for Sucrose Crystallization Based on Soft Sensor Approach, International Jour nal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 –8958, Volume-3, Issue-3, February 2014, Osama Z. El-Abdien, Yassien M. Temerk, Ibrahim D.

Abdullah, Sherif T. Amin

6. CoffeeNet: A deep learning approach for coffee plant leaves diseases recognition M Nawaz, T Nazir, A Javed, ST Amin, F Jeribi, A Tahir Expert Systems with Applications 237, 121481

7. Deep learning for predictive modeling of cardiovascular disease: optimizing neural networks Mohammad Alamgir Hossain, Sherif Tawfik Amin, Hassan Abu Eishah, Alfadil Ahmed Hamdan, Abdelnasser Abdelwakil Metwally, Suresh Limkar Publication date 2024/1/6 Book Proceedings of Eighth International Conference on Information System Design and Intelligent Applications Pages 371-382

8. Machine Learning Based Model For Solar Radiation Prediction Me Abdelhag, SEE Ali, ST Amin, A Ali, Khan MACHINE LEARNING 54 (02)

11. Dynamic Resource Orchestration for Computing, Data, and IoT in Networked Systems: A Data-Centric Approach Authors Suresh Limkar, Mohammad Alamgir Hossain, **Sherif** Tawfik Amin, Yasir Ahmad Publication date 2025/1/29 Journal Current and Future Cellular Systems: Technologies, Applications, and Challenges Pages 185-207 Publisher John Wiley & Sons, Inc.

14. Mathematical Modelling and Deep Learning Techniques for Predicting Cardiovascular Disease Authors, Tawfik Z. S.Mohamed Ahmed, Mohammad Alamgir Hossain*, Suresh Limkar, Hesham Bahkiry, S, Nawazish Alam, Sherif Tawfik Amin Publication date 2024/10 Journal Panamerican Mathematical Journal Volume 34 Issue 4 Pages 230-244

15. Developing Secure and Interoperable Health Information Systems Using Blockchain Technology to Enhance Data Privacy, Security, and Accessibility in Healthcare Authors Tawfik Reda Radwan, M, Suresh Limkar, Mohammad Alamgir Hossain*, Eltahir Abdelhag.Mohammed, Hesham Bahkiry, Ahamed Meeran, Ali.Shaik, Sherif Tawfik Amin Publication date 2024/10 Journal Panamerican Mathematical Journal Volume 3 Issue 4 Pages 300-315

16. Cognitive Cellular Networks: Empowering Future Connectivity through Artificial Intelligence Authors Ahmad Yasir Mohammad Alamgir Hossain, Limkar Suresh, Amin, Sherif, Tawfik Publication date 2024/10 Book Current and Future Cellular Systems: Techonologies, Applications and Challenges Publisher IEEE-Wiley

19. Implementing optimization and fine-tuning emergency response strategies in cryptographically enhanced IoT-infused medical infrastructure for rapid response, Sherif Tawfik Amin, Publication date 2024/6/4 Journal of Discrete Mathematical Sciences and Cryptography Volume 27 Issue 2-A Pages 431-439 Publisher Taru Publications

20. MDSV: Mobs Detection by Enhanced Fused Feature Base Deep Neural Network from Surveillance Camera Authors Mohammad Alamgir Hossain, Mostafa M Mehanawi, Sherif Tawfik Amin, Mohammad Haseebuddin, SK Sarikul Alam Publication date 2024/4/18 Book International Conference on Smart Computing and Informatics Pages 123-134 Publisher Springer Nature Singapore

21. Cardiovascular Disease Prediction with Convolutional Neural Networks and Hyperparameter Tuning Authors S Limkar M.A Hossain, Abdulnasser Metwally, Asif Khan, Sherif Amin, Hamdan Alfadil Publication date 2024/1/4 Conference 8th International Conference on Information System Design & Intelligent Applications (ISDIA-2024), Dubai, 03-04 Jan 2024

24. Deep Learning for Predictive Modeling of Cardiovascular Disease: Optimizing Neural Networks Authors S Limker M. A Hossain, S Amin, H Eishah, Al Hamdan, A Metwally Publication date 2024/1/4 Conference 8th International Conference on Information System Design & Intelligent Applications (ISDIA-2024), Dubai, 03-04 Jan 2024

25. Smart IoT-enabled Healthcare Systems: Real-time Anomaly Detection and Decision Support using Deep Learning Models Authors Mohammed Hassan Osman Abd Alraheem Sherif Tawfik Amin, Suresh Limkar, Mohammed Eltahir Abdelhag, Yagoub Abbker Adam Publication date 2024 Journal of Electrical Systems Volume 20 Issue 1 Pages 318-328 Publisher ESR.

FOREIGN LANGUAGES (SPEAKING AND WRITING)

1. English
2. French