

# Ali Adams

**Software Engineer and Physics Teacher**



## Personal Details

Citizenship : British Iraqi  
Languages : Arabic and English  
Birth : Baghdad, 05 March 1966  
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## Qualifications

- Nov 96 – Mar 00: **Ph.D. Self-Organizing Data** [\*pending write up]  
**Bournemouth University, UK. [British Telecom Sponsorship]**  
Fuzzy logic-based intelligent data self-migration/replication near their most frequent users to improve system responsiveness and minimize network traffic. A [simulation](#) tool was developed using C++Builder based on my own freeware [FuzzyLib](#) library to validate and evaluate the new data management model.
- Sep 93 – Sep 94: **M.Sc. Software Engineering**  
**Bournemouth University, UK. [Dorset TEC Sponsorship]**  
Practical investigation into object database technology using POET. [Loveline for Windows](#) was developed in Borland C++ & OWL.  
**Subjects:**  
Software Development Methodologies, Software Development, Systems Architecture, and Project Management.
- Sep 90 – Apr 91: **M.Sc. Electromagnetic Engineering**  
**Cardiff University, UK. [Higher Education Ministry Scholarship]**  
**Subjects:**  
Electromagnetic Fields, Magnetic Materials, and Electronics.
- Sep 83 – Jun 88: **B.Sc. Electrical Engineering** *1st out of 55 graduates*  
**University of Technology, Baghdad, Iraq.**  
Z80-based measurements of HV lightning for power lines protection.  
**Subjects:**  
Applied Mathematics, Systems Control, Electromagnetism, Electronics, Power System Analysis, High Voltage, and Physics.

## Career

- Mar 08 – Present: **Quran Numerical and Similarity Researcher**  
**UAE, China, Iraq, USA, UK**  
**QuranCode** software for numerical and similarity research into the ever-revealing Al-Quran. Full C# source code at [qurancode.com](http://qurancode.com).
- Aug 09 – Jun 10: **Physics Teacher**  
**China-UK College, Shenzhen, China.**  
**IGCSE** Physics with emphasis on *why* rather than on *what* using *Physics Complete* textbook by Stephen Pople.
- Aug 06 – Oct 08: **Software Instructor**  
**Emirates Advanced Investments, Al Ain, UAE.**  
Leading a team of 3 developers to build a smart client framework to dynamically generate GUI user interfaces for a medical information system using ANSI C++ server, XMLrpc middleware, and a generic C# WPF client-side container with caching management.

- Aug 03 – Aug 06: **IT Faculty**  
**Higher Colleges of Technology, Abu Dhabi, UAE.**  
Teaching software modelling and development at BSc and Higher Diploma levels. Duties include preparations of material, course delivery, examinations, and project supervision.
- Jan 03 – Aug 03: **Software Developer**  
**Scott Tod Developments, Crickhowell, Wales, UK.**  
Vending Machine Monitoring System using Delphi 5 and InterBase 6.
- Oct 01 – Feb 02: **GUI Design Consultant**  
**AWEK Integrated Systems, Gdańsk, Poland.**  
Automatic GUI generation for a data-centric suite of applications using Delphi 5 and Oracle 7.4/8.
- Jan 01 – Oct 01: **Database Consultant**  
**Versant Corporation, Basingstoke, UK.**  
OMDBS Post-sale consultancy (Database fine tuning, Java, C++)
- Mar 00 – Jan 01: **Senior Software Engineer**  
**Racal Recorders Ltd, Southampton, UK.**  
Outsourced by **Teleca UK** to Racal to carry out enhancements of a Telephony C++ API and development of an Open Switch Interface using DCOM for unified access by other departmental tools.
- Oct 96 – Mar 00: **Lecturer / Demonstrator** [Part-time]  
**Bournemouth University, UK.**  
**MSc SE:** Software Development (OOP, C++) lectures and labs.  
**BSc HCI:** Advanced Programming (C++) lectures and labs.  
**BSc Project Supervision:** [Automatic GUI Generation](#).
- Oct 95 – Oct 96: **Research Assistant**  
**Bournemouth University, UK.**  
Practical evaluation of object database management systems using *ObjectStore fine-grain and coarse granularities*.

## Interests

I have keen interest in fundamental physics and in 1999 was invited by the European Space Agency (ESA) for my experiment proposal onboard the International Space Station (ISS) as part of their SUCCESS competition in which our team had reached the semi-finals.

Moreover, a new model of reality based on *Helical Particle Waves* has been suggested as alternative to the standard model. Real meaning is given to the concepts of *mass*, *electric charge*, *magnetic moment*, *light propagation* in a new unified framework of reality where **Reality = Energy + Information**.

And of course, I naturally enjoy developing open-source software such as *QuranCode*, *AstroClock*, *1stTalk* for Kids and *123Guess* for PocketPC which are freely downloadable with 100% source code from [www.heliwave.com](http://www.heliwave.com).

## Teaching Philosophy

*"Tell me and I'll forget,  
show me and I'll remember,  
involve me, and I'll learn."*

Interactive teaching is my natural way of passing knowledge to others. When possible, I try to arouse learners' curiosity with related questions to ensure that their minds are ready to receive the new knowledge and store it at the correct associative long-term memory location.

## Physics Competitions

**European Space Agency**  
SUCCESS Competition  
Experiment Team Day  
ESTEC, Noordwijk, The Netherlands



## References

**Jean-Pierre Muller** [My Manager]  
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IBM Middle-East  
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